

electronics BUYERS' GUIDE

JUNE MID-MONTH • 1957

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GENERAL ELECTRIC

ELECTRONIC COMPONENTS, EQUIPMENT, AND ALLIED PRODUCTS FOR ALL COMMUNICATION AND INDUSTRIAL APPLICATIONS

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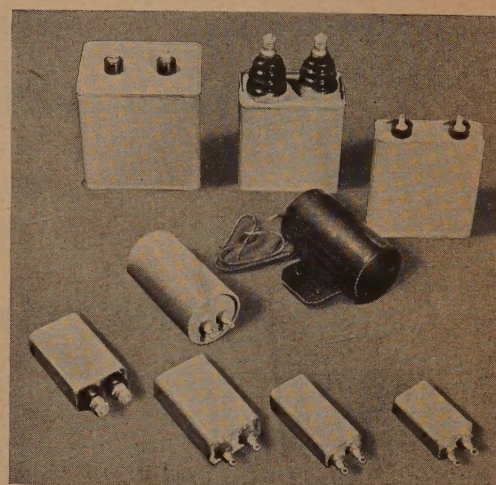
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CAPACITORS

PERMAFIL CAPACITORS: Permafil high-temperature capacitors are designed to exceed the performance requirements of MIL-C-25A Characteristic K specifications, and are suitable for operation in ambient temperatures from -55 to +125 C at full rated voltage.

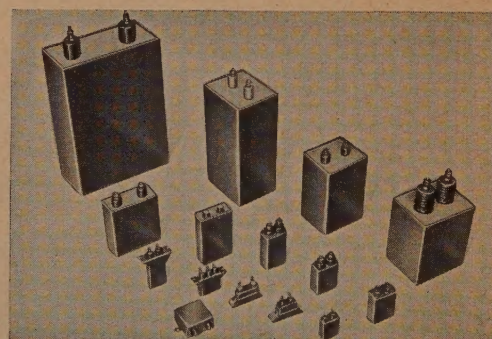
Permafil, used as the impregnant instead of mineral oil, is a solid resinous material having excellent electrical characteristics over a wide temperature range. Since it is a compound, the processing and manufacture of Permafil capacitors can be controlled to exacting requirements, and results in units that are more reliable at elevated temperatures. Because the impregnant is solid, it obviates possibilities of leaks.



STANDARD COMMERCIAL TYPES Fixed Paper-dielectric Capacitors

A-c/d-c dual-rated Pyranol* capacitors for motors, controls, electronic equipments, and other applications will reduce inventories, simplify design problems, and increase standardization. Capacitors in the voltage ranges 236 through 660 volts, a-c, and 400 through 1500 volts, d-c, are now dual-rated and can be used for either a-c or d-c applications. Other a-c and d-c ratings available: 0.01 to 75 μ f, 236 to 660 volts, a-c, and 100 to 100,000 volts, d-c.

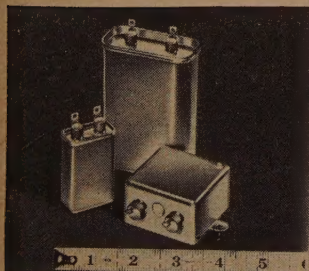
Write for Bulletin GEC-809.



CAPACITORS TO MEET MIL-C-25A SPEC. 100 to 12,500 Volts D-c—0.01 to 15 Microfarads

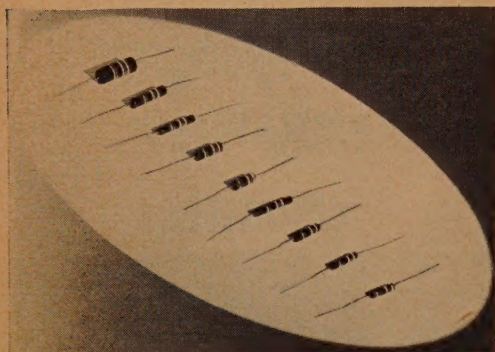
These fixed paper-dielectric capacitors are designed to meet the rigid requirements of the joint Army-Navy specifications for use in electronic equipment for the armed forces. Hermetically sealed in metallic containers, these capacitors for d-c applications are available in Characteristics E and F and in Case Styles CP-53, -54, -55, -61, -63, -67, -69, and -70. In addition to regular applications, these units may also be used at higher temperatures, higher voltages for short-life applications, and with a-c voltages. Write for Bulletin GEC-810.

* Registered trade-mark of General Electric Co.



Ratings	D-c Voltage	μ f
Case Style 53	100 to 1000	.05 to 4
Case Style 61	100 to 1000	.01 to 2
Case Style 70	100 to 1500	.1 to 10

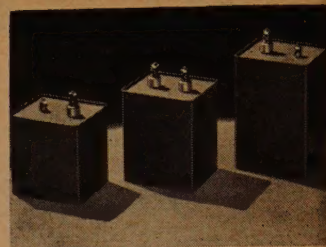
MOLDED PVZ* TUBULAR CAPACITORS



* Trade-mark of General Electric Co.

Write for Bulletin GEC-1452.

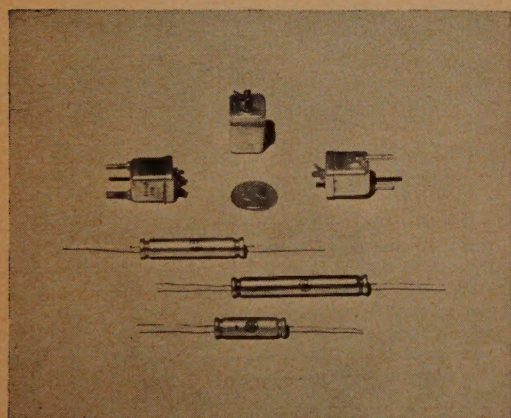
General Electric molded PVZ tubular capacitors have applications in computers, missiles, telephone equipment, and other high-grade military and commercial electronic equipment. Ratings: 100 to 400 volts. They can be supplied from 0.00047 to 0.022 μ f in the 400-volt range and from 0.00047 to 0.15 μ f in the 100-volt range. Tolerances: $\pm 5\%$, $\pm 10\%$, $\pm 20\%$. Temperature range is from -55°C to $+125^\circ\text{C}$.



ENERGY STORAGE

These d-c Pyranol capacitors for phototube and similar light-duty, energy-storage applications are the result of years of experience in the design and manufacture of capacitors for this type of service. They are relatively lightweight, small, stable capacitors having a life consistent with the application involved. Write for Bulletin GEC-1357.

GENERAL ELECTRIC TANTALYTIC† CAPACITORS

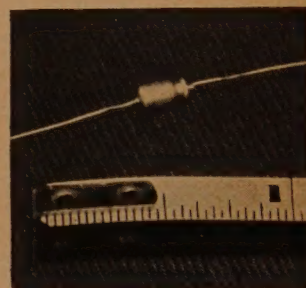


† Registered trade-mark of General Electric Co.

Write for Bulletin GEA-6258.

The Tantalytic capacitor was developed to fit low-voltage applications where superior performance and small size are the major factors.

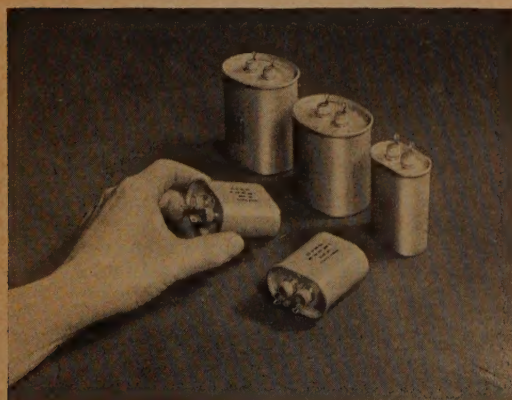
The Tantalytic capacitor is a foil-type, tantalum-electrode, electrolytic unit, similar in construction to an aluminum electrolytic capacitor, but, because of the characteristics of tantalum foil and the electrolyte employed, is smaller in size. The Tantalytic capacitor has lower leakage currents, longer shelf life, and a wider range of temperature operation, without derating, than the conventional aluminum electrolytic capacitor. Tantalytic capacitors, in a wide range of ratings, are currently being used in telephone equipment and military communication and electronic equipment. They are available for 85°C and 125°C service.



MICRO-MINIATURE TANTALYTIC CAPACITORS

Designed for low-voltage d-c applications where superior characteristics and size are important. Applications: In miniaturized assemblies with transistors: In hearing aids, and military applications employing transistors. Write for Bulletin GEA-6065.

GENERAL ELECTRIC DRAWN-OVAL CAPACITORS



Write for Bulletin GEA-5777.

Drawn-oval capacitors have found wide application in fluorescent-lamp ballasts, air-conditioning and refrigeration equipment, business machines, luminous-tube transformers, submersible pumps, and industrial control. They are smaller, lighter, stronger, and 10 to 20 per cent less costly than standard fabricated fixed paper-dielectric types. Ratings range from 1 μ f to 20 μ f at 236 to 660 volts, a-c, and 1 μ f to 20 μ f at 600 to 1500 volts, d-c. They are available in single- and double-section types with a wide range of terminal styles. Drawn-oval capacitors can be mounted in any position with suitable brackets available.



PULSE-FORMING NETWORKS

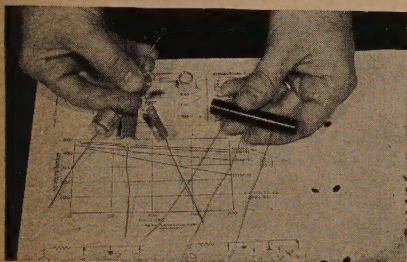
These capacitor pulse-forming networks, Type E, are for applications in radar and industrial equipment where the normal (exponential) capacitor discharge shape is not suitable and where an impulse having a definite energy content and duration is required. Bulletin GEA-4996.

COMPONENT RECTIFIERS,

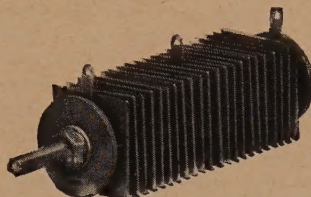
Vac-u-Sel,* COPPER-OXIDE, GERMANIUM, AND SILICON

Rectifiers for practically any d-c power requirement are available. Vac-u-Sel rectifiers are a high-quality type of selenium rectifier produced by an exclusive

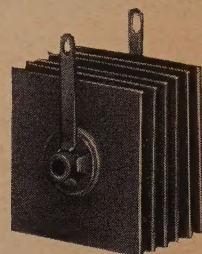
G-E sphere-type, vacuum-evaporation process. In addition, General Electric also makes a full line of copper-oxide, germanium, and silicon rectifiers.



Miniature Vac-u-Sel rectifiers



Standard Vac-u-Sel rectifier stack construction



Tube-mounted Vac-u-Sel rectifier stack construction

GENERAL ELECTRIC *Vac-u-Sel* RECTIFIERS

• 63 VOLTS PEAK INVERSE

• 150 C PLATE TEMPERATURE

• 80,000 HOURS LIFE EXPECTANCY

The special vacuum-evaporation process employed in making Vac-u-Sel rectifiers makes possible the outstanding performance characteristic of this selenium rectifier. With G-E Vac-u-Sel rectifiers, you can now match performance requirements for life expectancy, ambient operating temperature, and atmospheric protection, as well as electrical characteristics. Two (2) rectifier cells make up the line of Vac-u-Sel rectifiers: a 26-volt and a 45-volt cell. Both are high-temperature cells.

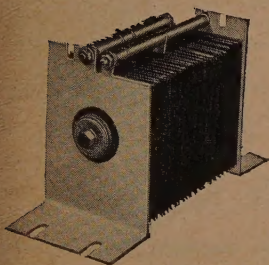
The 26-volt cell is a long-life, standard industrial cell with a life expectancy of 80,000 hours at normal current rating at 35 C ambient. The 26-volt cell can meet operating requirements up to 150 C at full voltage. Current need not be derated where shorter life is acceptable. Life expectancy at 150 C is 1000 hours.

The 45-volt cell has a 63-volt peak inverse voltage. Unlike most 45-volt rectifiers, this is a true, long-life industrial cell. Frequently,

this rectifier may be substituted for those employing 26-volt cells. Since fewer cells are required, savings of up to 30 per cent in cost and up to 35 per cent in the size of the stacks are possible. Life expectancy of the 45-volt cells at normal current rating at 35 C ambient is 60,000 hours, and they can be used at ambient temperatures up to 110 C.

All Vac-u-Sel rectifiers operate with exceptionally low forward-voltage drop and low reverse leakage, and their margin of superiority in these characteristics increases with service. All Vac-u-Sel rectifiers undergo extensive testing and grading, and matched cells are used in assembling stacks. A variety of finishes and mounting arrangements are available to meet virtually any requirement. Write for Bulletins GEA-5935 (miniatures); GEA-6273 (standard); GEC-1330 (application manual).

COPPER-OXIDE RECTIFIER STACKS



G-E copper-oxide rectifier stacks offer these outstanding features:

- No unforming • Ability to withstand momentary current overloads
- Ability to withstand momentary voltage overloads • Longer life with little aging • Highest efficiency at low voltages.

These features of General Electric copper-oxide rectifiers make them especially suited for certain types of magnetizing circuits, which require

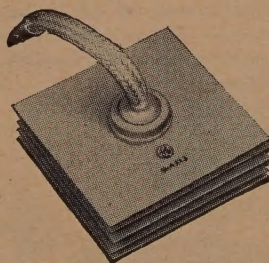
the rectifier to withstand high current inrush and momentary voltage overload.

Perhaps the most widespread use of copper-oxide rectifiers is in the field of circuit-breaker operation. Here, the unique characteristics of copper-oxide rectifiers are especially important.

The above features also make copper-oxide rectifiers ideal for the following applications: • Blocking • Metering • Polarizing relays • High-speed relays • Electroplating • Electrolytic reduction • Telephone and telegraph equipment • Control contactors • Low-voltage, high-current power supplies • Testing equipment • High-voltage surge protectors • D-c welders. Write for Bulletin GEA-5699.

* Registered trade-mark of General Electric Co.

INDUSTRIAL GERMANIUM AND SILICON RECTIFIERS



With more than 1,000,000 amperes of large-area, single-crystal rectifiers now in service, G-E germanium and silicon power rectifiers have become a proven source of dependable d-c power. They offer these features:

- Hermetically sealed cells • Negligible aging • Small size and weight • No unforming.

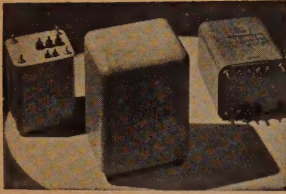
The application of these new monocrystalline rectifiers is backed up by operating experience both in the laboratory and in numerous field installations.

The extensiveness of this knowledge makes it possible to predict accurately the performance characteristics of these rectifiers in many different types of service.

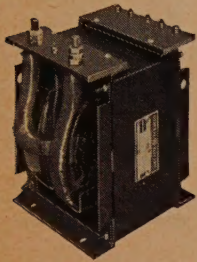
Both types are well suited whenever the optimum size, weight, and efficiency are desired in heavy current-type applications. Germanium will prove to be more practical at the lower levels and at normal ambient temperatures. Silicon is indicated at the higher voltage levels and at higher ambient temperatures. The General Electric Company is prepared to provide complete engineering and application assistance upon request.

Complete information on all of these rectifiers is available from your nearest G-E Apparatus Sales Office, or by writing to Section 640-472, General Electric Company, Schenectady 5, New York.

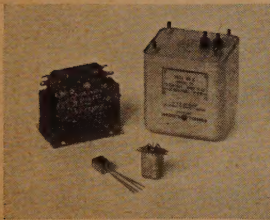
SPECIALTY TRANSFORMERS



HERMETICALLY SEALED: A complete line of hermetic transformers in 22 standardized case sizes was specifically designed to meet the performance requirements of the government MIL-T-27 specifications. These units, featuring drawn-steel cases and silicone bushings, are the most dependable sealed transformers it is possible to provide and can be used on a wide range of applications.



OPEN TYPE: Usually applied where moisture resistance is not an important factor, and where size and weight must be kept to a minimum. Composed of automatically wound coils imposed on finest-grade silicon-steel core laminations, they are of the same uniform high quality as our encased transformers. Made to exacting tolerances to provide excellent electrical characteristics. Terminal boards top- or bottom-mounted, or with leads, and with mounting studs or brackets to meet special requirements.



ENCAPSULATED TYPE: Three new encapsulated transformer lines now permit designers in the electronic industry to choose the best and least-expensive encapsulation for their applications: (1) an extremely durable elastomer formula for Class H, (2) Class A modified epoxy resin, and (3) other combinations of varnishes and epoxys or polyesters for less-rigid environmental conditions.



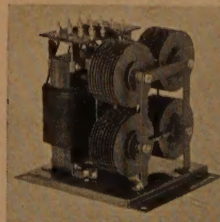
AIRCRAFT TRANSFORMERS

General Electric manufactures a complete line of standard 400-cycle aircraft transformers which includes general-purpose transformers, phase-changing transformers, high-temperature silicone transformers, ballasts for fluorescent lamps, ignition transformers for cabin heaters, de-icers, and jet engines. General Electric builds transformers to individual specifications, both military and commercial.

SATURABLE REACTORS

Their features are:

- (1) provide control in an a-c circuit by means of a direct current, (2) provide a wide range of control with smooth adjustment over entire range, (3) d-c control power required is small, obtainable from any reasonable combination of available current and voltage, (4) very efficient, even at light loads, (5) voltage drop in reactor at full saturation is small, permitting 93% or more of the voltage to be applied to load, (6) compact, sturdy, no moving parts, (7) control power readily obtained from inexpensive rectifier, (8) conveniently installed in least-crowded part of the building for remote-control operation, (9) provide a means of insulating the d-c control from the a-c circuit. These units are for use as control devices for numerous automatic and manual control applications.



SUBMINIATURE TRANSFORMERS

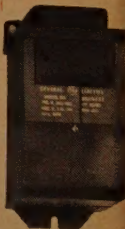
Available in five construction types for pulse, blocking-oscillator, power, reactor, audio, and other miniature-transformer applications. Units are designed



to meet applicable grades of environmental and electrical requirements of MIL-T-27A in sizes of two cubic inches and less. Construction types include plug-in hermetic, flange-mounted hermetic, open core and coil, dip-encapsulated, and cast-encapsulated, as illustrated above.

CONTROL, PANELBOARD, and SIGNAL TRANSFORMERS

Two lines of transformers for control and small, general-purpose loads designed to fit the needs of electronic-equipment and panel builders. Standard control transformers are available in dual-frequency, series-multiple ratings from 25 to 2000 va, enclosed construction, and from 25 to 250 va for open wiring. Panelboard transformers are available from 50 to 5000 va in a standardized line of 22 ratings featuring a choice of leads, circuit breakers, or 1-, 2-, and 4-fuse combinations. Special control transformers can be furnished for normal and high-reactance applications having special voltage and load requirements.



HIGH-VOLTAGE TRANSFORMERS

Are used as components of radio and television transmitter equipment, and allied devices which require high operating voltages above ground. Construction type shown in the photograph permits a substantial reduction in size and weight—critical factors in many installations. A cost saving is also effected over similar ratings of enclosed-type construction.

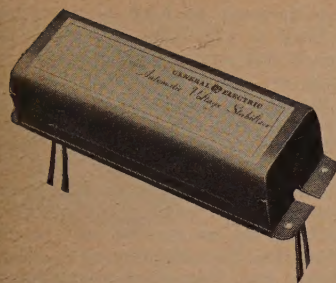


AMPLISTATS

APPLICATION: The amplistat is a complete packaged d-c amplifier applicable to a wide range of control and instrumentation purposes. Standard ratings are available from 1 va to 930 va. The following are a few of the many possible combinations of SIGNAL SOURCES (Thermocouples, Strain gages, Thermistors, Photocells, Phototube amplifiers, Bismuth-wire magnetic-field sensitive resistors, Shunts, Resistance-type temperature bulbs, other Amplistats) with CONTROLLED DEVICES (Relays, Solenoids, Small-motor fields, Generators, Amplidyne fields, Power rectifiers, Lamps, Heating elements, other Amplistats).

FEATURES: High Gain—Isolation—Input windings galvanically isolated from output. Reliable—Rugged construction, little, if any, maintenance. Static—No moving parts. No warm-up time—Has no tubes. Compact—Fits easily on control panels and chassis.

AUTOMATIC VOLTAGE STABILIZERS

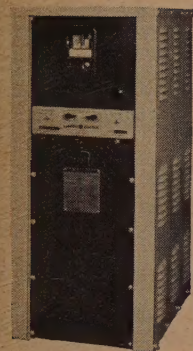


For equipment which requires accurate line-voltage regulation in ratings of 15 to 10,000 va, standard G-E stabilizers can be used to cut costs and save space. Many of the standard models can be operated from either 115 or 230 volts and will deliver either 115 or 230 volts to the load, thus providing transformation, as well as regulation.

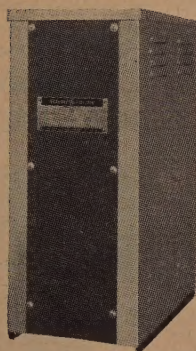
With line-voltage variations of 30 per cent, these stabilizers will maintain output voltages to within ± 1 per cent of the normal. Quiet, automatic, they provide correction within two cycles.

If your product is composed of one of the following items, it will pay you to investigate stabilizers: television and radio equipment; telephone apparatus; sound equipment; lighting circuits; photometers; x-ray equipment; rectifiers (full-wave); electrochemical apparatus; test equipment and precision processes; photographic equipment; electronic circuits; calibration devices; color comparators. Write for Bulletin GEA-5754. Special designs can be furnished in ratings in excess of 10,000 va, or with special voltages, if desired.

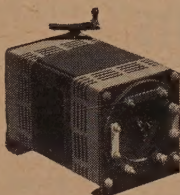
INDUCTROL* VOLTAGE REGULATORS



Automatic



Motor-driven



Hand-operated

HAND-OPERATED

MOTOR-DRIVEN

AUTOMATIC

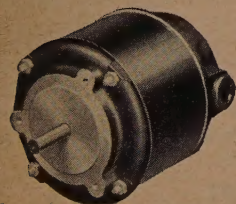
The Inductrol induction voltage regulator is designed for industrial use. Inductrols can be used to hold a constant load voltage accurately, when supplied from a fluctuating supply voltage or, conversely, can be used to provide a variable load or utilization voltage from a relatively constant supply voltage. Either of these functions can be automatically controlled, or can be manually controlled by means of motor drive or hand crank. Other Inductrol controls can be furnished to hold alternating current, or rectified alternating current or voltage. Inductrols are available for circuits up to 600 volts. Inductrols rated 120/240 volts give up to ± 100 per cent regulation. Write for Bulletins GEC-1450, GEA-6261.

FEATURES—No brushes to wear out! No routine maintenance! Drift-free controls! Absolutely stepless control! No wave-form distortion! Autotransformer efficiency!

* Trade-mark of General Electric Company for induction voltage regulators

SPECIALTY MOTORS

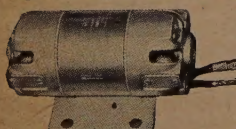
FRACTIONAL-HORSEPOWER MOTORS



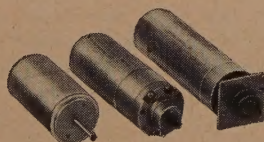
Synchronous Induction Motors: High torque at slow synchronous speed for remote-control devices, indicating instruments, timing devices, etc. For

low-inertia applications requiring rapid changes in rotation. Synchronous speed: 75 rpm, 75 oz-in. torque. Motor starts, stops, reverses, within $\frac{1}{2}$ cycle of power supply. Smaller size delivers 2 oz-in. at 100 rpm. Write for Bulletin GEC-1294.

Taxi Dynamotors: Compact, lightweight units convert low-voltage, d-c power to high-voltage, d-c for mobile radio transmitters in taxis, police cars, trucks, buses, railroads, fire departments, forestry radio transmitters, etc.



Input: 6-28 volts. Output: up to 660 v, 165 watts, 5 min on, 15 min off-duty cycle.



Permanent-magnet Motors:

Permanent-magnet, totally enclosed, shunt motors for aircraft operation (very high ambients), blower, actuator, tuner, and other applications. Can be dynamically braked by short-circuiting armature terminals, and reversed by use of relays. Explosion-proof, shock-resistant. 0.01 hp, 10,000 rpm, 27.5 v input, 130 rpm with gear reduction. With radio-interference filter. Write for Bulletin GEC-988.

ELECTRONIC AMPLIDYNE



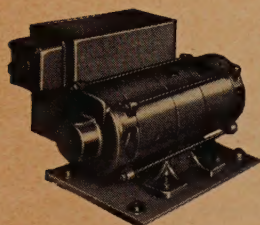
An extremely responsive amplifier combined with a motor-amplidyne set, useful in many types of motor control where precise regulation of current, voltage, and speed is necessary or desirable.

APPLICATION: Controls speed, limits loads, holds tension, speeds up acceleration, positions precisely, provides quick stopping. Readily adaptable to programming and processing control.

RATED—As a regulated, adjustable-voltage power supply for d-c motors up to $1\frac{1}{2}$ hp. As regulated exciter for large, adjustable-voltage drives up to 200 hp. The unit has an output of $1\frac{1}{2}$ kw, 250 volts. Can be arranged for use on 220- or 440-volt, 3-phase, 60-cycle power supply.

The G-E electronic amplidyne is applied as a part of a complete control system. Write for Bulletins GEA-4053, GEA-4889.

RAILWAY COMMUNICATIONS POWER SUPPLIES



Totally Enclosed Model

either inside or outside the cab; meets AAR Specifications 12-10. Both power supplies can be furnished for operation from input voltages of 32, 64, or 115 volts, d-c. The static Thyrite* resistor control system is designed to give good regulation for a varying input voltage. No external fuse protection is necessary on output circuit since sets have built-in automatic-reset thermal overload protection.

APPLICATION: G.E. has available both open and totally enclosed motor-alternator sets for use as power supplies for railway radio-telephone transmitting and receiving equipment. Motor-alternator sets provide suitable power output requirements for a single receiver and one 10- to 30-watt transmitter. Open model is suitable for inside mounting only. Totally enclosed model, of severe-duty construction, can be mounted

FEATURES: Meet electrical requirements of AAR Specifications 12-10 and 12-22. Open model rated at 117 volts, a-c, 60 cycles, 3600 rpm, 300 watts continuous at 0.9 power factor. Totally enclosed model rated at 117 volts, a-c, 60 cycles, 3600 rpm, 175 watts continuous at 0.9 power factor. It is also rated at 300 watts transmit and 110 watts stand-by for a cycle of five minutes on and fifteen minutes off over a period of seven hours; and ten seconds on, twenty seconds off for one hour as required by AAR Specifications 12-10. The regulation between stand-by currents of 0.9 amp and transmit current of 2.5 amp is better than $\pm 2\%$ which is a voltage spread of 4.5 volts. There are no moving parts in the control system or within the control box. No maintenance or adjustment is required within the control box. Frequency regulation is well within limits of ± 10 cycles per second as in AAR Specifications 12-22. Totally enclosed model has both input and output circuits filtered for RF; filters housed in cast-aluminum box. These sets are of two-unit, two-bearing construction. Brush holders and bearings are mounted in rubber. Total weight of these sets, including resilient-mounted base and control box, is 97 lbs. Write for Bulletins GEA-6068 and GEA-6370.

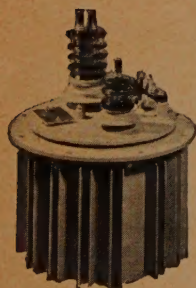
* Registered trade-mark of General Electric Co.

HIGH-VOLTAGE COMPONENTS

High-voltage Radar Transformers and Inductors (Oil-filled)



SELENIUM POWER SUPPLIES: These hermetically sealed, d-c power-supply units employ selenium rectifier stacks. They are suitable for supplying the high potential necessary for cathode-ray tubes, television-camera tubes, radar-indicator scopes, electron microscopes, and other applications where low regulation, light weight, and small size are primary considerations. Illustrated is a unit rated 7000 volts, 0.1 ma, d-c, or 0.35 ma, d-c. It is designed for 215 volts, 2000 to 20,000 cycles, a-c input. An additional pair of terminals, supplying 45 volts a-c when 215 volts are applied to the input terminals, makes the unit especially suitable for use in the tank circuit of an audio-oscillator.



PULSE TRANSFORMERS—Oil-filled, Hermetically Sealed: Oil-filled, hermetically sealed pulse transformers in peak voltage ratings of from 10 to 100 kv or higher and in peak power ratings up to 30,000 kw or more are now available for use with either hard-tube or line-type modulators.

These compact units, designed for operation on pulse durations ranging from 0.1 to 20 microseconds—normally for a duty cycle of 0.001—are ideal for such applications as pulse voltage step up or step down, impedance matching, phase reversing or phase nonreversing, isolating load from source. The pulse transformers also permit measurement of plate current of transmitter tubes.



RESONANT-CHARGING INDUCTORS—Oil-filled, Hermetically Sealed: Precision inductors are required for resonant-charging, line-type, radar modulator circuits. They are designed to operate at full d-c load with an a-c current superimposed and insulated to withstand test voltages of two times normal operating voltage. Currently available in peak-operating-voltage ratings from 5 to 50 kv and current rating up to 3.0 amperes, these sturdy units have a wide range of inductance ratings from 0.25 to 300 henrys which remain constant within 5 per cent from full-load to 50 per cent full-load current.

HERMETICALLY SEALED RECTIFIER EQUIPMENTS



Typical of the rectifier equipments now being offered for military and commercial use. Unit on right, rated 3 kv, 0.068 amp, d-c output, contains a plate transformer, filament transformer, filter inductor, and resonant-charging inductor in the same tank, (dimensions are only 6 3/4 by 5 3/4 by 9 in.).

Unit on left is a large, three-phase, full-wave rectifier rated 12 kv, 0.72 amp, d-c output. Lower tank section contains a three-phase plate transformer, filament transformer, and filter inductor. Upper enclosure houses the rectifier tubes & auxiliary equipment.

FILAMENT TRANSFORMERS

Oil-filled filament transformers for special applications or for use with any of the standard, high-voltage rectifier tubes. These compact units can be provided with or without tube socket mounted integral with the high-voltage terminal. Illustrated is a hermetically sealed, low-capacitance filament transformer rated 5 volts, 14 amperes, and insulated for 24-kv operation.



Write for Bulletin GEA-5963

When ordering or seeking information please mention *Electronics Buyers' Guide*.

SWITCHBOARD AND PANEL COMPONENTS

PANEL INSTRUMENTS: 3½-inch Types: General-purpose, small



panel instruments for use in radio and communications equipment where compactness (particularly minimum depth behind the panel) is essential. Internal-pivot-design construction with pivots solidly mounted to the inside of the shell. Moving coil. Element assembly is a self-contained unit supported by a high-coercive, fabricated magnet. A

strong, compact instrument with fast response and excellent damping. Available in a variety of ratings, in round and square cases: Type DO-71 voltmeters, ammeters, milliammeters, and microammeters for measuring d-c voltage and current; Type AO-72 voltmeters, ammeters, and milliammeters for measuring a-c voltage and current.

2½-inch Types: Same construction and appearance design as the 3½-inch types. Type DW-71 for d-c measurements: ammeters (1 to 30 amp), milliammeters (1 to 500 ma), microammeters (50 to 500 μ a), and voltmeters (1 v to 300 v). Write for Bulletin GEC-368.

4½-inch Types: Internal construction similar to 2½-in. and 3½-in. types. Rectangular case 4 ½ in. long and 4 ½ in. high. D-c, Type DO-78, scale length 3½ in., and a-c, Type AO-58, scale length 3 in. Ratings available similar to 3½-in. DO-71 instruments. Write for Bulletin GEC-368.

D-C, TYPES DW-71, DO-71, AND DO-78				A-C, TYPES AO-72 AND AO-58			
Type	Rating Range	Approx Range	Res Ohms	Type	Rating Range	Approx Range	Res Ohms
Ammeter	1 to 50 amp	0.001 to .05		Ammeter	1 to 100 amp	0.00031 to .138	
Milliammeter	1 to 500 ma	0.10 to .68		Milliammeter	10 to 500 ma	0.43 to 1060	
Microammeter	20 to 550 μ a	70 to 2030		Voltmeter	1 to 500 v	2 to 100,000	
Voltmeter	1 to 500 v	1000 to 500,000					
Kilovoltmeter	1 to 5 kv	1,000,000 to 5,000,000					

OPERATING-TIME METER—Type KT: Type KT time meters pro



vide an accurate, inexpensive method of measuring the life of electron tubes, record total operating time of the machines or devices to which they are connected. They are available in three forms; for panel or switchboard mounting, portable, and for conduit mounting. They also can be furnished to measure operating time in hours, tenths of

hours, or minutes. These time meters are designed for applications on electron-tube life tests, punch presses, molding machines, etc. For use on 60-, 50-, or 25-cycle, a-c circuits. Voltage rating is from 120 to 480 volts for the three available forms of this meter. Write for Bulletin GEC-472.

INDUSTRIAL INTERVAL TIMER—TYPE TSA-18

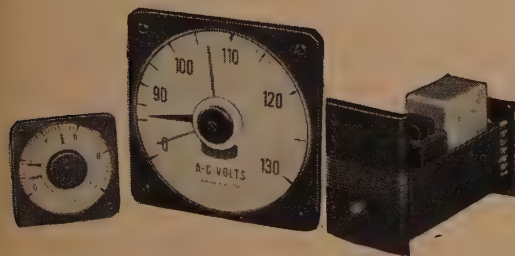


This versatile timer eliminates the need for expensive "extras" often required with conventional timers. Accurate settings to within 1%, manual or automatic control, dustproof enclosure, and time cycles from 30 seconds to 30 hours are all standard with the TSA-18. Provides accurate, adjustable time-delay opening and/or closing of contacts. For manual operation or automatic recycling; models also available to show elapsed time within controlled program.

The TSA-18 is available in a single-circuit or two-circuit model. Any combination of these can be utilized to control any number of circuits. Delayed ON-OFF timing in intervals of ½ second to 30 hours. Setting knobs have locking device to help prevent accidental disturbance of program. Write for Bulletin GEC-1223.

LONG-SCALE SWITCHBOARD INSTRUMENTS AND CONTROL INITIATION

Accuracy $\pm 1\%$



Control initiation installed on G-E instruments, DB-18 (left) and AB-18 (middle). Each set point is connected to a plug-in relay (right).

Long-scale, compact instruments intended for general switchboard service on large and small equipments. Excellent for control stations, test equipment, and other installations in limited space. Five instruments can be mounted side-by-side on a 24-in. panel. Drawn-steel, dustproof covers for semiflush mounting. New convex glass cover, with scale mounted flush with case front, reduces shadows to minimum and results in greater readability. Antiparallax scale and pointer, magnetic damping, and external zero adjusters.

General Electric switchboard instruments include voltmeters, ammeters, wattmeters, frequency meters, power-factor meters, varmeters, synchroscopes, temperature meters, and ground detectors. The above are available as standard instruments in all common ranges and can be furnished in many special ratings and constructions; for example, rectifier types for high-sensitivity, a-c measurements. For a more complete listing and special applications, write for Bulletins GEC-218 and GEA-6325, or contact local G-E Apparatus Sales Office.

WATTMETERS: Accuracy— $\pm 1\%$; Operating Principle—Electrodynamometer; Single-phase and Polyphase Types.

VARMETERS: 3-phase, 3-wire; 2-phase, 3-wire; 2-phase, 4-wire; 3-phase, 4-wire; 5 amp; 120-208 v; Accuracy— $\pm 1\%$; Operating Principle—Electrodynamometer with autotransformer.

FREQUENCY METERS: 120 v; 60 cycles; Accuracy—22.5-27.5 cy—0.08 cy, 46-55 cy—0.15 cy, 56-65 cy—0.15 cy, 350-450 cy—1.50 cy; Operating Principle—Resonant-circuit.

POWER-FACTOR METERS: 3-wire, 3-phase; 4-wire, 3-phase, 5 amp, 120-600 v; Accuracy— ± 0.01 power factor for rated current, voltage, and frequency; Operating Principle—Polarized-vane.

SYNCHROSCOPES: 25 cycles with external impeder; 50 and 60 cycles, self-contained; 120 v; 360-degree rotation; Operating Principle—Polarized-vane. Write for Bulletin GEC-218.

SWITCHBOARD AND PANEL COMPONENTS

TERMINAL BOARDS



Typical EB-5 board with short-circuit strips



Typical EB-6 board with hinged cover

Boards will accommodate wire sizes from No. 18 to No. 10 inclusive. Completely assembled boards can be furnished, with or without covers, for any number of poles, 2 through 18.

For use where leads are brought to any point for permanent or temporary connection, especially if many wires are involved.

Type EB-5 are fabricated terminal boards. Each is equipped with the necessary washer-head binding screws for circuit-wire connections.

Type EB-6 are fabricated terminal boards of the same construction and size as the Type EB-5, except that clamp-type connectors are furnished.

CONTROL and TRANSFER SWITCHES



Type SB-1 design is extremely flexible and can be applied to meet special requirements. Features include: square operating shaft with cams to provide positive contact operation; silver-to-silver contacts; totally enclosed compact design; ample space for connecting leads; choice of operating handles; permanent-finish Textolite® escutcheons; wide range of stages and contact positions, the number of circuits to be controlled determining the number of stages and contacts needed. Switches having up to 16 stages are commonly furnished. The maximum number of positions, or throws, is 12.

Rating of Type SB-1 switches is 600 v, 20 amp continuous, 250 amp for 3 seconds. Interrupting rating depends upon voltage and character of circuit, as well as number of contacts in series. Write for Bulletin GEA-4746.

* Registered trade-mark of General Electric Co.



INDICATING LAMPS

Types ET-5 and ET-6 offer high visibility, low wattage, and long life. Consist of telephone-type lamp with contacts mounted within an insulated tube and with a ceramic resistor for any standard voltage up to 600 v.

For any panel thickness up to 2 in. Color cap provides excellent vision from any angle. Available in 6 colors: red, white, amber, blue, yellow, and clear.

AIR CIRCUIT BREAKERS

Switching and better protection of power circuits is secured by using air circuit breakers. Type AK-1 breakers are available for switchboard mounting for use, for example, as main power-supply breaker in TV transmitters or are individually enclosed for remote installations. Current ratings from 15 through 4000 amperes, up to 600 volts, a-c, and 250 volts, d-c. See GEA-5915 for full details.



HIGH-INTERRUPTING-CAPACITY FUSES

The General Electric high-interrupting-capacity, current-limiting, Type CLF fuse provides efficient and economical short-circuit protection for control power circuits, motor starters, feeders, and similar applications on systems 600 volts and below. Not only will the CLF fuse isolate faulty apparatus and circuits, but it also affords better protection by reducing the destructive let-through energy associated with short circuits. Rated to interrupt available short circuits of 200,000 amp at 60 cycles, these fuses are available in ratings from 6 through 4,000 amp, 250 v and 600 v. Write for Bulletin GEA-6319.



MOLDED-CASE CIRCUIT BREAKERS

Molded-case circuit breakers comprise a complete line of fuseless protection for distribution, power, lighting, and appliance circuits. They are used in individual mountings, built-in applications, separate enclosures,

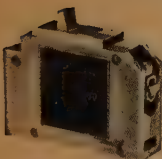
switchboards, panelboards, and load centers. The sturdy, molded-phenolic cases and trip units are sealed against tampering. The circuit breakers are quick-make, quick-break; they are trip-free and trip-indicating.

REPRESENTATIVE 50-AMPERE FRAME TYPES

5000-ampere, a-c, interrupting ratings



Type R Plug-in



Type ALB-1 Plug-in

Type R—single-pole, plug-in units for standard-duty applications from 15 to 50 amp, 120 v, a-c, 120/240 v, a-c, 2-wire, with thermal magnetic trip.

Type ALB-1—single-pole, plug-in unit meeting Navy Hi-shock requirements, 125 v, a-c/d-c, 5 to 50 amp, thermal and independent magnetic trip. Navy breakers not U/L listed.

Type TQ—single-pole, front and back mounting for applications from 10 to 50 amp, 120 v, a-c, 120/240 v, a-c, 2-wire, with thermal and independent magnetic trip.

Type TQL—single-, two-, or three-pole with common trip, plug-in units for applications from 10 to 50 amp: single-pole, 120 v, a-c, 120/240 v, a-c, 2-wire; two-pole, 120/240 v, a-c; two- and three-pole, 240 v, a-c, with thermal and independent magnetic trip.

Other circuit breakers are available in standard industry sizes from 10 to 800 amp for applications up to 600 v, a-c, 250 v, d-c. For further information, request Bulletin GEC-1032 from Circuit Protective Devices Department, 41 Woodford Avenue, Plainville, Connecticut.



Type TQ Bolt-on



Type TQL Plug-in

CONTROL ACCESSORIES



AC or DC SOLENOIDS, CR9500

Simplify complex installations: in direct or remote control requiring short, powerful thrusts. Wide selection: 24 different ratings, to 40 lb at 1/2-in. stroke or to 36 lb at 1-in. stroke, available in push- or pull-type operation and for use on a-c or d-c circuits up to 600 volts, maximum. Used to push or pull in a straight line, or to provide mechanical motion at a remote or inaccessible location. They may be operated remotely from a push-button station or automatically by limit switches, pressure switches, float switches, or other pilot-circuit devices. Write for Bulletin GEA-6215.

GENERAL-PURPOSE RELAYS, CR2790E

Used to control pilot circuits in response to remote-control switch or thermostat. Also, for direct control of small motors driving pumps, fans, etc; as a f-hp motor starter, and in conjunction with a magnetic switch controlling larger motors, and for signal systems. Comes in open-type or in general-purpose case. Explosion-proof and watertight cases available as kits. Three contact arrangements available: double-pole, double-throw; double-pole, single-throw; single-pole, single-throw. Protection against hazard from restarts after power failures can be provided with the double-pole form when one pole is used as a holding interlock in the coil circuit together with a momentary-contact, push-button station. Enclosed forms have convenient conduit entrances at top and bottom. Write for Bulletin GEC-257.

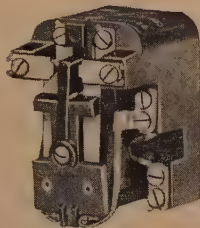
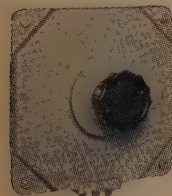


PLATE RHEOSTATS, IC8000 and IC8070

Back-of-panel or front-of-panel mounting or floor-mounted. Hand-, chain-, or motor-operated. Six-, nine-, and twelve-inch-square plates, providing 27 to 70 divisions.



These rheostats consist essentially of one or more resistance plates with suitable contact mechanisms assembled in frames. Each resistance plate consists of a molded-compound plate in which resistor elements are welded, and, in turn, embedded in a special cement which provides excellent heat-conducting and electric-insulating qualities. Hand-wheels and sprockets are insulated from the switch parts.

Write for Bulletin GEA-6474.

OILTIGHT PUSH-BUTTON UNITS, SELECTOR SWITCHES, INDICATING LIGHTS



Push-button unit



Selector switch



Indicating light

A push button with building-block construction. This provides flexibility to meet requirements for special units by simple combination of the basic elements, which consist of separable operators, a removable color ring for identification, and a basic contact block. Operators and contact blocks are furnished separately. Single, double, or tandem contact blocks are quickly and easily attached to any type of operator. A complete line of oiltight stations, units, selector switches, and indicating lights is offered. Write for Bulletin GEA-5779.

PUSH-BUTTON STATIONS

For control circuits of magnetic controllers designed for push-button control. Standard- and heavy-duty stations available which may consist of various combinations of momentary-contact buttons, maintaining-contact buttons, selector switches, and indicating lights, for surface or flush mounting. Standard-duty station recommended for use with contactors rated up to and including 150 amp. Write for Bulletin GEA-6544.



ENAMELED RESISTORS, IC9006



Fixed resistor



Slide-wire resistor

The IC9006 enameled resistor units employ a strong, high-heat-resisting, ceramic body developed to withstand sudden and extreme temperature changes. The low-temperature-coefficient resistance wire, after being wound on the body, is embedded in a vitreous enamel, which is fused at high temperatures to a uniform, glossy structure. The enamel is moisture-resistant and extremely durable and gives mechanical protection to the resistor windings.

Fixed and slide-wire resistors are supplied with push-in mounting feet or with alternate mounting arrangements, such as heavy duty mounting feet, through bolts, or multi-resistor mounting brackets. Taps, as required, can be supplied on fixed resistors, and a choice of sliders can be supplied in the slide-wire type.

RATINGS AND DIMENSIONS

Continuous Watt Rating (Open)	Dimensions in Inches	
	Body Diameter	Length
5	5/16	1
10	5/16	1-3/4
20	5/16	2
25	5/8	2
50	3/4	4-1/2
100	1-1/8	6-1/2
160	1-1/8	8-1/2
200	1-1/8	10-1/2

Write for Bulletin GEA-6592.

SPECIALTY CONTROL



MINIATURE

1. CR2791G121 series—For military and industrial applications; coil voltage 1 to 175 volts, d-c; coil resistance 10-16,000 ohms; AN 3304 type relay; designed for special reliability.
2. CR2790G126 series—For industrial and military applications; operates from 115 volts, a-c; for long-life switching, currents up to 5 amp resistive at 115/220 volts, a-c, or 30 volts, d-c. (Example: pulsing coil of similar relay, expected life, 50 million operations.)
3. CR2791K110 series—High-speed polarized relay; switching up to 10 milliamp; operates in as little as $\frac{1}{4}$ millisecond (250 microseconds); AN 3304 size can—4PDT or 4 independent single-pole, double-throw elements.

SUBMINIATURE

4. CR2791G152 series—Designed to give reliability of AN 3304 type relay in subminiature-size enclosure; weighs less than one

HERMETICALLY SEALED RELAYS

The General Electric family of hermetically sealed relays combine small size with unusual reliability under severe temperature, shock, and vibration conditions—making them ideal for all radio, radar, fire control, navigational equipment, and industrial electronic jobs.

Though initially designed for military applications, more and more General Electric sealed relays are being used for industrial jobs. Their extreme reliability and small size are being utilized by industrial designers. Resistance welding and other industrial electronic circuitry is being simplified and miniaturized with G-E sealed relays.

ounce; $\frac{3}{4}$ inch in diameter and $1\frac{1}{4}$ inches long; single-pole, double-throw.

5. CR2790G125 series—Same size and weight as CR2791G152. Design is modified to permit operation from 400-cycle, a-c voltage.
6. 3S2791G160 series—High reliability in subminiature size; exceptionally resistant to shock and vibration; two-pole, double-throw.

MICRO-MINIATURE

7. 3S2791G200 series—Voltage-calibrated model—two-pole, double-throw; weighs only 0.5 oz, measures 0.36 in. by 0.80 in. by 0.88 in.; contacts rated 2 amp resistive at 28 v. d-c, or 115 v. a-c; has a sensitivity of 340 milliwatts.
8. 3S2791G210 series—Current-calibrated model—has a sensitivity of 200 milliwatts; designed for lower operating power; possesses same features as voltage-calibrated model, but about 0.31 in. longer.

PHOTOVOLTAIC CELLS

SELF-GENERATING

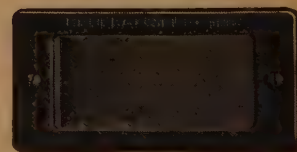
For detecting, controlling, and measuring light or color where long life and stability are required, or where it is impractical to employ electronic amplifiers. Extensively used in light meters, reflectometers, colorimeters, densitometers, photometers, photographic exposure meters, headlight testers, phonograph pickups, etc. For complete information, contact your nearest General Electric Apparatus Sales Office.



Hermetically sealed cells



Unmounted cell



Mounted cell

INSTRUMENT-STANDARDIZATION CONSOLE

The instrument-standardization console is designed to be a basic unit in any operation concerning the development, design, standardization, or service calibration of various electric instruments. In large instrument servicing groups, it can be used as the basic or primary instrument-calibration equipment because of its high accuracy and versatility. In smaller electric-instrument servicing groups, its versatility makes it the most complete single facility available for general instrument-calibration activity.

The instrument-standardization console is most widely used for the calibration of portable, small panel, switchboard and recording types of electric instruments. The equipment supplies regulated power in the audio-frequency range of

50 to 3000 cycles per second and finds a definite application in the military, electronic, and aircraft industries as well as other industries making wide use of instruments.

Following are some typical portable, small panel, switchboard, and recording instruments which can be calibrated with this equipment. D-c: galvanometers, microvoltmeters, millivoltmeters, voltmeters, microammeters, milliammeters, ammeters, analyzers (instrument), multimeters, oscillographs, photoelectric recorders, current shunts, and standard cells. A-c: millivoltmeters, voltmeters, milliammeters, ammeters, frequency meters, ammeter with current transformer, voltmeter with potential transformer, and electronic voltmeters.



Switches on lower panel of this instrument-standardization console are used to complete tests after controls on upper panel are set.

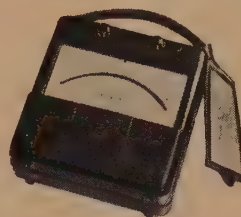
PORTABLE TESTING AND RECORDING INSTRUMENTS



PHOTOELECTRIC RECORDER—Type CE: For temperature measurements, developmental testing, high-speed recording, laboratory investigations, physiological research, and equipment tests. Provides direct ink records, and is ideal for any test where only a small amount of energy is available for the operation of the recorder. Sensitivities obtained as low as 5.0 microamperes or 0.2 millivolt, full-scale. Response periods as fast as 1/5 second. Four different motor arrangements provide chart speeds from 1/2 inch per hour to 72 inches per minute. Write for Bulletin GEC-254.

AC & DC PORTABLE INDICATING INSTRUMENTS

Types AP-11, DP-11, AP-12, DP-12



A line of instruments which is functionally designed to give the greatest convenience and readability. Precision components and spring-mounted moving elements are used to achieve sustained accuracy. These precision instruments are suitable for laboratory use, as well as for field applications and production tests.

Types AP-11 (a-c) and DP-11 (d-c): Designed for general testing where a dependable, easily read instrument with 1/2 of 1% accuracy is required. Ideal for trouble shooting and maintenance work where accurate readings must be taken under adverse lighting conditions. Size—7 3/8 by 7 7/8 by 3 1/4 in. Scale length—5.5 inches. Pointer—Knife edge with mirror scale. Damping—Magnetic. Zero Adjuster—External. Shielding—Excellent shielding from stray magnetic fields.

Types AP-12 (a-c) and DP-12 (d-c): Specifications are similar to DP-11 above, except accuracy is to 1/4 of 1% full-scale.

INSULATION-RESISTANCE METER: An electronic instrument designed to measure insulation resistance over a range of 0 to 20,000 megohms. Measurements indicate poor insulating materials and materials contaminated by dirt or moisture. This instrument also makes possible the study of the effects of temperature and humidity on insulation. Consists of an electronic rectifier, a bridge circuit which contains Thyrite® resistance material, and an electronic-tube voltmeter, all in one enclosure. Meter is available in range of 0 to 20,000 megohms and has four scales. Over the range of 5 to 20,000 megohms, tests are made at a constant 500-volt d-c potential; and from 0 to 5 megohms at 0 to 250 volts. The meter is small, compact, portable—convenient for production and service testing, simple to operate. Write for Bulletin GEC-753.



* Registered trade-mark of General Electric Co.

CURRENT-LIMITED HIGH-POTENTIAL TESTER: By limiting the output current to a maximum of 5 milliamperes, the tester effectively minimizes most of the hazards encountered with high-potential testing equipment. Features: output current limited to below the maximum current which an operator can let go; nondestructive testing; line surges virtually eliminated in output; indicates voltage on sample regardless of wave shape; internal voltage drop, or variation in line voltage; faults indicated by glow lamp on panel. Output voltage: 0-3500 volts (peak $\sqrt{2}$). Write for Bulletin GEC-700.

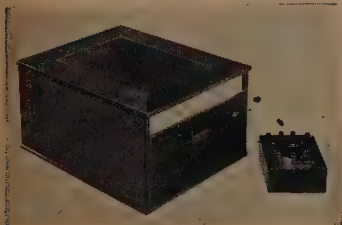


Output current limited to less than 5 milliamperes when shipped. Maximum load for full output voltages: 0.005 μ f. Write for Bulletin GEC-700.

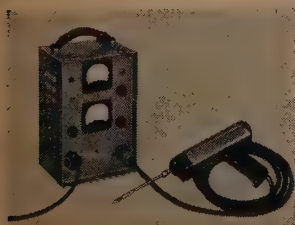


GAUSS METERS: Used for measuring: Flux density in gaps of instrument magnets; of blocked d-c relays and breakers; of blocked-rotor generators or motors. Field gradient across air gaps. Direction and density of leakage flux emitted from perimeter of magnets. Flux density in iron portions of magnetic circuits. Strength and direction of stray fields of many permanent and electromagnets. Magnetic properties encountered in laboratory work. Available in d-c ranges from 25 to 20,000 gauss; a-c ranges—60 cycles from 0-2500 gauss. Write for Bulletin GEC-777.

INDICATING FLUXMETER: A convenient means for accurately measuring flux densities and total flux. Determines magnetic properties of permanent magnets and d-c electromagnets. Measures flux distribution in a magnet gap, leakage flux along sections of a permanent magnet or electromagnet. Write for Bulletin GEC-777.



LEAK-DETECTION EQUIPMENT: A complete line of leak-detection equipment is available for detecting small leaks in any closed system (vacuum and pressure). Types available are helium and halogen leak detectors. Write for Bulletins GEC-233 and GEC-336.



GENERAL-PURPOSE OSCILLOGRAPH Type PM-20



Uniquely designed for fast operation and maintenance, the PM-20 will record up to 71 variables on one oscillogram. A wide range of frequencies, from d-c to 6000 cps, can be recorded. Record speed may be adjusted from 4 to 500 feet per minute. Many additional features are provided, including automatic record numbering, timing lines, trace interruption for identification, automatic record-length control adjustable from 1/2 to 5 feet, and remote control. Write for Bulletin GEA-6348.

Type PM-18: Records 2, 3, or 4 rapidly or slowly changing currents and voltages simultaneously. Transient phenomena of short duration can be recorded by means of a synchronizing switch. Records may be made using continuous-drive holder, film-pack holder, or Polaroid-Land film holder, which produces finished oscillograms in one minute without the use of a darkroom. Write for Bulletin GEC-580.

INDUSTRIAL SOLDERING IRONS

General Electric soldering irons are highly efficient for all work requiring soft soldering. Reserve heat capacity of G-E irons makes them outstanding for continuous, high-speed production soldering. Write for Bulletin GEC-1318.

FEATURES

CALORIZED COPPER TIPS

Durable, interchangeable, designed for extra-long life.
Calorized coating retards corrosion and oxidation, helps prevent freezing of tips to tip holder—increases tip life.

IRONCLAD COPPER TIPS

Couple quick heat transfer of copper with long-wearing qualities of iron—for extra-long life.

TUBULAR HEATING ELEMENTS

Provide quick, more dependable heating.

STAINLESS-STEEL SHELL

Provides high corrosion resistance and low heat loss.

MIDGET SOLDERING IRONS

Ironclad tips only



25-watt, 6-volt.
1/4-in.-dia chisel tip. Also available in 1/8-in.-dia pyramid tip and 3/16-in.-dia chisel and pyramid tips.

LIGHTWEIGHT INDUSTRIAL IRONS

Ironclad tips only



60-watt, 120-volt.
3/16-in.-dia pyramid tip. Also available in 1/4-in.-dia chisel tips.

INDUSTRIAL SOLDERING IRONS

75, 100, 110, 125, 200, 300 w
Calorized or Ironclad tips
115 or 230 v



BULLETINS COVERING GENERAL ELECTRIC APPARATUS PRODUCTS

Space does not permit description of all products related to the electronic field. For full details and bulletins write your nearest General Electric Apparatus Sales Office.

Amplifiers See Page 5
Magnetic See Page 5
Power See Page 5
Strain-gage GEC-1248

Analysts
Surface Analyzers and
Comparators GEC-774
Vibration GEC-1369, GEC-1370

Antennas, Radar GEA-6279
Arresters, Lightning GEA-2977

Balancing Equipment,
Dynamic GEC-320
Battery Chargers GEC-826
Bearings, Jewel GEC-370
Bus Bar Systems GEA-5460

Communication Systems,
Carrier Current Write for details

Controls
Elevator Leveling Write for details
Heat-treating Write for details
Illumination Write for details
Machine-safety GEA-6131
Mechanical Switch GEA-6131
Motor GEA-6198
Package-wrapping GEA-4371
Positioning GEA-2176
Pressure Write for details
Register-cutter Write for details
Servo GEC-767
Smoke & Combustion GEA-5254
Temperature GEC-1005
Vacuum Write for details

Converters, Low-frequency GEA-5551

Detectors, Radiation Write for details

Dielectrics, Liquid
(Pyranal*) Write for details

Dynamometers GEA-5923

Dynamotors See Page 5

Elements, Heating GEC-1005

* Registered trade-mark of General Electric Co.

Furnaces,
Electric or Gas-fired Write for details

Gages
Comparator GEC-774
Ionization Write for details
Paint-depth GEC-319
Strain GEC-888
Vacuum GEC-385, GEC-986
Galvanometers GEC-694

Generators
Gas-engine-driven GEA-5299
Motor GEC-302

Heating, Electronic Induction GEA-4945

Indicators
Antenna-position GEA-2176
Film-thickness GEC-319
Liquid-level GEA-3833
Material-thickness GEC-319
Nuclear-radiation Write for details
Smoke & Combustion GEA-5254
Strain GEC-888
Telemetering GEA-5233
Temperature GEC-218
Vacuum GEC-385, GEC-986

Inverters Write for details

Jewels, Glass GEC-370

Kilovoltmeters GEC-218

Magnetic Analysis
Equipment GEC-777

Meters
Electrical Quantities See Pages 7, 11
Frequency GEC-218
Vibration Write for details
Viscosity GEC-339

Motors
Fractional-hp GEC-1026
Gear GEA-1437, GEC-1026
Single-phase, Integral-hp GEC-1026
Polyphase, Integral-hp GEC-1026
Servo GEA-2176
Synchronous GEA-5426, GEC-344
Mounts, Antenna GEA-6279

Networks, Pulse-forming See Page 2

Ohmmeters See Pages 7, 11

Photoflash Equipment,
Electronic GEC-337
Potentiometer,
Self-balancing GEC-367
Pots, Soldering GEC-512
Pots and Tanks, Heating GEC-1005
Power Supplies, D-c See Page 3
Pyrometers & Potentiometer
Pyrometers GEA-6020, GEC-713

Recorders
Potentiometer GEC-1362
Temperature GEC-1362
Relays, Time-delay GEC-1425

Shunts, Meter GEC-218
Spectrophotometers Write for details
Starters, Magnetic GEA-6198
Switches
Limit GEA-6131
Pressure-operated Write for details
Vacuum Write for details
Synchros GEA-2176

Telemetering Systems,
Electronic GEA-5233

Testers
Coating-thickness Write for details
Insulation GEC-700
Thermocouples GEC-714
Thermostats GEC-1350
Timers
Automatic, Cycle GEC-1223
Automatic, Interval GEC-1223
Automatic-reset GEC-525, GEC-1223
Sequence GEC-1223

Vibration Analysis
Equipment GEC-1369, GEC-1370

General information may be secured from the following bulletins: Industrial Heaters, GEC-1005; Measuring Equipment for Laboratory and Production Testing, GEC-1016; Motors, GEC-1026; and Control, GEC-1260.

When ordering or seeking information
please mention Electronics Buyers' Guide.

For more dependable service . . .

SPECIFY G-E ELECTRONIC TUBES FOR YOUR EQUIPMENT

Essential Characteristics of typical G-E Electronic Tubes to aid you in selecting tube complements for your circuits.

FULL INFORMATION, DETAILED DATA ON ANY G-E TUBE SENT ON REQUEST**GENERAL ELECTRIC LIGHTHOUSE TUBES****tubes****tubes**

Type* No.	Service	Cathode		Plate		Max Dissipation, Watts	Frequency for Max Ratings mc/s	Mu	Gm μmhos
		Heater Volts	Heater Amp	Max Volts	Max Amp				
GL-2B22	RF Detector	6.3	0.75	100 Peak	0.7 Peak		1500		
GL-2C39-B# (metal-ceramic)	CW Oscillator or Class C Amplifier	6.3	1.0	1000	0.125	100	2500	100	2400
GL-2C40	Class A RF Amplifier	6.3	0.75	500	0.025	6.5	1200	36	4850
	CW Oscillator	6.3	0.75	500	0.025	6.5	3370	36	4850
GL-2C40-A	CW Oscillator	6.3	0.75	500	0.025	6.5	3370	35	5100
	Plate-Pulsed Oscillator	6.3	0.75	1400	2.0	4.0	3370	35	5100
GL-2C43	CW Oscillator	6.3	0.9	500	0.040	12	1500	48	8000
	Plate-Pulsed Oscillator	6.3	0.9	3500	2.75	12	3370	48	8000
GL-6299 (metal-ceramic)	Class A RF Amplifier	6.3	0.300	200	0.012	2	3000	115	12000
			Noise figure—8.2 decibels at 1200 megacycles; 4.5 decibels at 400 megacycles						
GL-6442# (metal-ceramic)	Plate-Pulsed Oscillator	6.3	0.9	3000	2.5 Peak	7.5	4000	50	16500
	Class C Amplifier or CW Oscillator	6.3	0.9	350	0.035	8	2500	50	16500
GL-6897#	CW Oscillator or Class C Amplifier	6.3	1.05	1000	0.125	100	2500	100	24000

* GL-2B22 is a diode; all others triodes. Metal-ceramic types withstand severe vibration and shock conditions. Applicable military specifications furnished on request. # Shock-tested to 400G.

G-E RECOMMENDED TYPES for Radio and TV receivers

Classification			Heater Current in Milliamperes					
			600	300	150	50	Other	
DIODES	TV High-Voltage Rectifiers						1B3-GT 1J3 3C2	
	Low-Current Rectifiers		3AL5	6AL5				
	Power Rectifiers	Half-Wave			35W4			
		Full-Wave	6X4 6X5-GT	12X4			5U4-GA 5AU4	
	TV Damping Diodes		12AX4-GTA 19AU4-GTA				6AU4-GTA 6AX4-GT 6W4-GT	
Triple							6BJ7	
TRIODES	Single	$\mu < 40$	2AF4-A 2BN4 6S4-A 12B4-A	12B4-A	6C4		6AF4-A 6AH4-GT 6BN4	
		$\mu > 40$			6AB4			
	Twin	$\mu < 40$	4BC8 4BQ7-A 4BZ7, 4BS8 6CG7 6SN7-GTB 7AU7 12BH7-A	7AU7 12AU7-A 12BH7-A	12AU7-A		6BC8 6BQ7-A 6BS8 6BZ7 6J6	
		$\mu > 40$	5BK7-A	12AT7 12AX7	12AT7 12AX7		6BK7-B	
		With Diodes	2 Diodes	6BV8 6CN7	6AV6 6CN7	12AV6		
	Dissimilar Double	3 Diodes	5T8		19T8		6T8	
			6CM7				6CY7	
		PENTODES	Voltage Amplifiers	Sharp-Cutoff	3AU6, 3CB6 3CE5/3BC5 3DT6	6AU6-A 6CE5/6BC5 6CB6, 6DT6	12AF6 12AU6	1U4	4DT6
	Remote-Cutoff			3BZ6	6BA6 6BZ6	12BA6	1T4	
	With 1 Diode						1U5	
With Triode	5CG8, 5DH8 5U8 6AU8-A 6BH8, 8CX8						6CG8-A 6CX8 6U8 6X8-A	
Power Amplifiers	Output Amplifiers		12BY7-A 12C5 12CA5 12L6-GT 12W6-GT	12BY7-A 25C5 25L6-GT	35C5 50C5	3S4 3V4	6AQ5-A 6V6-GT 6W6-GT 12V6-GT	
	Horizontal-Deflection Amplifiers		12AV5-GA 12DQ6 25CD6-GB				6AV5-GA 6CD6-GA 6DQ6	
	Twin		3BU8	6BU8			4BU8	
HEPTODES			3BY6 3CS6	6BE6 6BY6 6CS6	12AG6 12BE6	1R5		
GATED-BEAM TUBES			3BN6	6BN6			4BN6	
TETRODES with Triodes			5CL8				6CL8	

Regional Sales Offices

For further information on G-E tubes, please contact your nearest Regional Office.

EASTERN REGION

General Electric Company
200 Main Avenue
Clifton, New Jersey

Telephone—

Clifton, GRegory 3-6387

(N.Y.C. dial direct—

Wisconsin 7-4065-6-7-8)

CENTRAL REGION

General Electric Company
3800 North Milwaukee Avenue
Chicago 41, Illinois

Telephone—Spring 7-1600

WESTERN REGION

General Electric Company
11840 West Olympic Boulevard
Los Angeles 64, California

Telephones—BRadshaw 2-8566

GRanite 9-7765

GENERAL  ELECTRIC

Type designations of miniature tubes are shown in *italics*

See following pages for additional listings of G-E Electronic Tubes. All data subject to change without notice. The listing of any type does not necessarily imply immediate availability.

When ordering or seeking information please mention Electronics Buyers' Guide.

GENERAL ELECTRIC

High-reliability Types for Critical
FIVE-STAR COMPUTER TUBES

6829
Five-Star
Computer Tube
for airborne
computers



6414
Five-Star
Computer Tube
for military
ground equipments

Classification			Tube Type	Applicable MIL-E-1 Spec.	Heater	
					Volts	Amperes
Diodes	Low Current Rectifiers		5726	5726/6AL5W	6.3	0.3
			5896 Ⓢ	5726/6AL5W/6097 5896	6.3	0.3
	Full-wave Power Rectifiers		6087 #	None	5.0	2.0
			6202	6X4WA	6.3	0.6
		6203	6203	6.3	0.9	
Triodes	Single	$\mu < 40$	5718 Ⓢ	5718	6.3	0.15
			6135	6135	6.3	0.175
		$\mu > 40$	5719 Ⓢ	5719	6.3	0.15
	Twin	$\mu < 40$	5670	5670	6.3	0.35
			5814-A	5814-A	6.3/12.6	0.35/0.175
				5814WA		
			6021 Ⓢ	6021	6.3	0.3
			6111 Ⓢ	6111	6.3	0.3
			6386	None	6.3	0.35
			6840	In Process	6.3/12.6	0.8/0.4
			$\mu > 40$	5751	5751	6.3/12.6	0.35/0.175
				5751WA		
		6072		6072	6.3/12.6	0.35/0.175
		6112 Ⓢ		6112	6.3	0.3
		6201		12AT7WA	6.3/12.6	0.3/0.15
		6414		In Process	6.3/12.6	0.45/0.225
			6829	In Process	6.3/12.6	0.45/0.225
Pentodes	Voltage Amplifiers	Sharp-Cutoff	5654	5654/6AK5W	6.3	0.175
				5654/6AK5W/6096		
			5840 Ⓢ	5840	6.3	0.15
			6136	6AU6WA	6.3	0.3
			6205 Ⓢ	6205	6.3	0.15
		6265	In Process	6.3	0.175	
		Remote-Cutoff	5749	5749/6BA6W	6.3	0.3
			5899 Ⓢ	5899	6.3	0.15
	Dual-Control	5636 Ⓢ	5636	6.3	0.15	
		5725	5725/6AS6W 5725/6AS6W/6187	6.3	0.175	
Power Amplifiers		5686	5686	6.3	0.35	
		5902 Ⓢ	5902	6.3	0.45	
		6005	6005/6AQ5W	6.3	0.45	
			6005/6AQ5W/6095			
Heptodes			5750	5750/6BE6W	6.3	0.3
Thyratrons			5727	5727/2D21W	6.3	0.6

The ratings and characteristics of all twin-section types are given for each section.

GENERAL ELECTRIC



5965
Standard
Computer Tube
for commercial
equipments

Classification		Tube Type	Applicable Mil-E-1 Spec.	Heater	
				Volts	Amps
Diodes	Low Current Rectifiers	6919	None	6.3	0.2
Triodes	Twin $\mu < 40$	5844	In Process	6.3	0.3
		6211	None	6.3/12.6	0.3/0.15
		6463	None	6.3/12.6	0.6/0.3
		5965	None	6.3/12.6	0.45/0.225
	Twin $\mu > 40$				
Heptodes	Dual Control	5915-A	None	6.3	0.3
Thyratrons		6525	None	6.3	0.15

Note: Bold-face listings in top chart indicate Five-Star Computer types for critical military and industrial applications.

All data subject to change without notice. The listing of any tube type does not necessarily imply immediate availability.

When ordering or seeking information
please mention Electronics Buyers' Guide.

QUICK-SELECTION CHART

FIVE-STAR TUBESMilitary and Industrial Applications
SHOWN IN BOLD FACE**tubes**

Average Characteristics							Publication Number for Technical Data ##
Plate Volts	Screen Volts	Grid Volts	Plate ma	Screen ma	Gm μmhos	μ	
Voltage drop = 10 V @ 60 ma; max d-c current = 9.0 ma Voltage drop = 10 V @ 50 ma; abs max d-c current = 10.0 ma							ET-T 1088A ET-T 1097
Voltage drop = 50 V @ 125 ma; max d-c current = 125 ma Voltage drop = 22 V @ 50 ma; max d-c current = 50 ma Voltage drop = 22 V @ 70 ma; max d-c current = 70 ma							ET-T 1103 ET-T 1111 ET-T 1112
100 250	— —	R _k = 150 —8.5	8.5 10.5	— —	5800 2200	27 17	ET-T 1085A ET-T 1107
100	—	R _k = 1500	0.73	—	1700	70	ET-T 1086A
150	—	R _k = 240	8.2	—	5500	35	ET-T 1083A
250	—	—8.5	10.5	—	2200	17	ET-T 1095A
100 100 100 250	— — — —	R _k = 150 R _k = 220 R _k = 200 R _k = 620	6.5 8.5 9.6 14	— — — —	5400 5000 4000 6700	35 20 17 20	ET-T 1101A ET-T 1104A ET-T 1113 ET-T 1412
250	—	—3	1.0	—	1200	70	ET-T 1092A
250 100 250 180 150	— — — — —	—4 R _k = 1500 R _k = 200 —2 R _k = 220	3.0 0.8 10.0 8.0 8.5	— — — — —	1750 1800 5500 5550 6700	44 70 60 42.5 47	ET-T 1102 ET-T 1105A ET-T 1110 ET-T 1317 ET-T 1250
120 100 250 100 250	120 100 150 100 150	R _k = 200 R _k = 150 R _k = 68 R _k = 150 R _k = 100	7.5 7.5 10.6 7.5 7.4	2.5 2.4 4.3 2.4 2.9	5000 5000 5200 5000 4600	— — E _{c8} = 0 E _{c8} = 0 E _{c8} = 0	ET-T 1082A ET-T 1096A ET-T 1108 ET-T 1235 ET-T 1063A
250 100	100 100	R _k = 68 R _k = 120	11.0 7.2	4.2 2.0	4400 4500	E _{c8} = 0 —	ET-T 1090 ET-T 1098A
100 120	100 120	R _k = 150 —2	5.3 5.2	3.6 3.5	3200 3200	E _{c3} = 0 E _{c3} = 0	ET-T 1241 ET-T 1087A
250 110 250	250 110 250	—12.5 R _k = 270 —12.5	27 30 45	3.0 2.2 4.5	3100 4200 4100	P _o = 2.7 P _o = 1.0 P _o = 4.3	ET-T 1084A ET-T 1099A ET-T 1100A
250	100	—	2.5	7.5	G _c = 500		ET-T 1091
abs max PIV = 1300; abs max d-c current = 100 ma							ET-T 1089

Indicates subminiature type
Glass octal base

NOTE: All other types are miniatures

Complete technical data on G-E tubes may be obtained by
publication number from your nearest regional G-E Tube Office.**COMPUTER TUBES** FOR COMMERCIAL APPLICATIONS

Average Characteristics							Publication Number for Technical Data ##
Plate Volts	Screen Volts	Grid Volts	Plate ma	Screen ma	Gm μ hos	μ	
Voltage drop = 1.2 V @ 60 ma; max d-c current = 3.0 ma							ET-T 1392
100	—	$R_k = 470$	4.8	—	3700	28	ET-T 1157
100	—	$R_k = 470$	4.6	—	3600	27	ET-T 1160A
250	—	$R_k = 620$	14.5	—	5200	20	ET-T 1124
150	—	$R_k = 220$	8.5	—	6700	47	ET-T 1159
67.5	67.5	0	—	—	2400	—	ET-T 1158
Max PIV = 500; max d-c current = 20 ma							ET-T 1249

* Complete technical data on G-E tubes may be obtained by publication number from your nearest regional G-E Tube Office.

All data subject to change without notice. The listing of any tube type does not necessarily imply immediate availability.

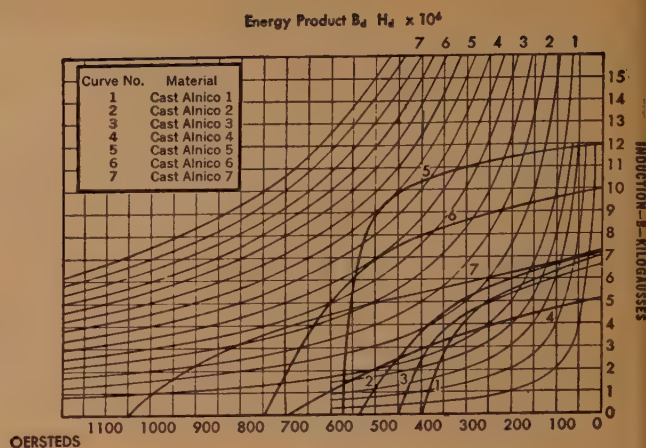
ALNICO PERMANENT MAGNETS

Provide constant, powerful magnetic field energy in a given space . . . with a minimum of volume and weight

G-E Alnico Permanent Magnets can simplify design, reduce size and cost of meters, instruments, controls, motors, and communications equipment. Guaranteed minimum external energy product up to 6,000,000 gauss-oersteds.

Available cast or sintered; stocked in a wide range of sizes and shapes. Other styles can be made to your specifications. Magnets can be furnished with steel inserts, close tolerance holes, die-cast aluminum sheaths or other coatings.

Complete magnet design and product development service available to work on your problems. Write for price lists, specifications, or Design Manual PM-125.



Demagnetization and energy product curves for General Electric Alnico Permanent Magnets

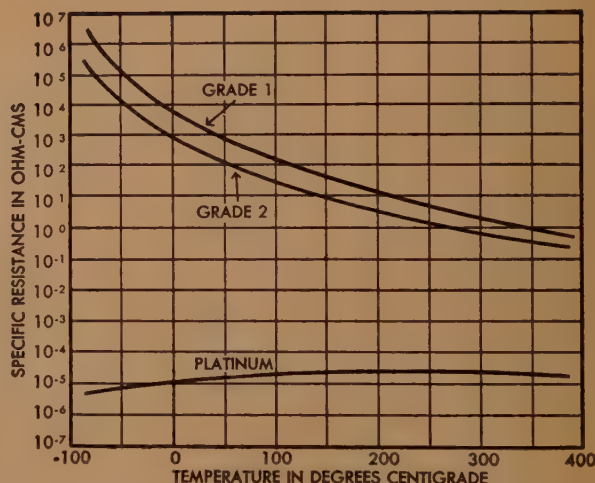
THERMISTORS

Detect, measure, compensate for minute changes in temperature

G-E Thermistors have large *negative* temperature coefficients. As circuit elements, they provide highly sensitive responses to relatively minute temperature changes.

In addition to uses in thermometry, Thermistors can provide time delay, suppress surges, control warning circuits and sequence switching.

Two grades available; stocked in rods, disks, and washers, with or without leads. Write for design assistance or Thermistor Manual TH-13A.



Temperature resistance values of General Electric Thermistors compared to a representative metal

THYRITE* VARISTORS

Nonlinear resistance material provides current that varies as a power of applied voltage

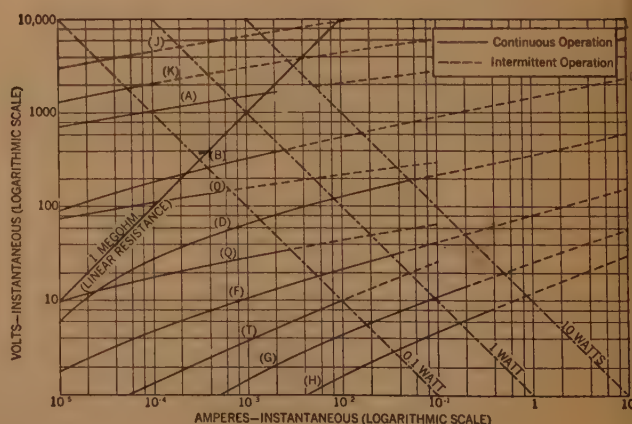
Because of their unique properties, G-E Thyrite Varistors can be used to limit voltage surges, to stabilize circuits supplied by rectifiers, to control voltage-sensitive circuits.

Also used as nonlinear resistance parameters, potentiometers, and frequency multipliers.

Thyrite Varistors are manufactured with a wide variety of volt-ampere characteristics. Stocked in disks and rods, with or without leads.

For help on your circuit-design problems, or for Thyrite Bulletin TY-101, write today.

*Registered trademark of the General Electric Company.



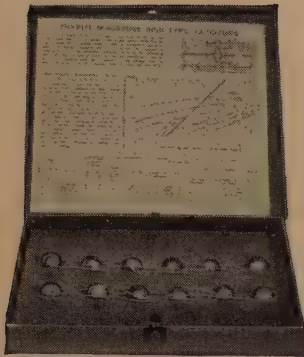
Typical volt-ampere characteristics of representative General Electric Thyrite Varistors.

(Sizes range from 1/2" to 6" diameter disks and from 1" to 2" long, 1/4" diameter rods. Curves from Thyrite Bulletin TY-101.)

ENGINEERING APPRAISAL KITS

for laboratory testing of Thermistors and Thyrite Varistors

THYRITE VARISTOR KITS

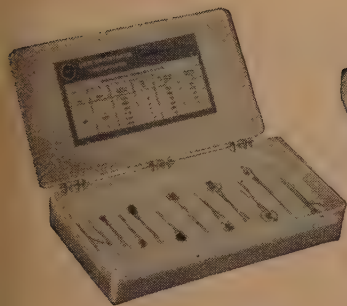


Kit No. 1—Miniature disk-type varistors. Contains: two each in six ratings, color-coded with connecting leads. Price: \$5.00.*



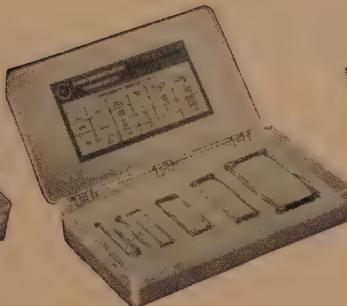
Kit No. 2—Rod-type varistors. Contains: two each in five ratings, color-coded with connecting leads. Price: \$5.00.*

THERMISTOR KITS



Kit A contains:

12 low-resistance (10-500 ohms @ 25° C) disk thermistors; two of each in six sizes. Price: \$12.50.*



Kit B contains:

12 high-resistance (1,000-100,000 ohms @ 25° C) disk and rod thermistors; two of each in six sizes and two grades. Price \$12.50.*



Kit C contains:

12 washer thermistors (10-415 ohms @ 25° C); two of each in six sizes, two grades; 1 set of thermistor assembly hardware. Price: \$12.50.*



Kit D contains:

10 disk thermistors, 1,000-ohm resistance; two of each in five sizes (two grades). Price: \$12.50.*

Order kits directly from:

Magnetic Materials Section of General Electric Co., 7780 N. Neff Road, Edmore, Michigan

*Plus applicable sales and use taxes.

SALES AND SERVICE OFFICES

CHICAGO 7, ILLINOIS

844 South Canal Street
Harrison 7-4828

CLEVELAND 3, OHIO

4707 Euclid Avenue
HEnderson 2-2650

DETROIT 32, MICHIGAN

11177 E. 8 Mile Road
JEfferson 6-9100

LOS ANGELES 18, CALIF.

2106 West Washington Blvd.
REpublic 1-8286

KENILWORTH, N.J.

760 Colfax Avenue
CHestnut 5-7250

Progress Is Our Most Important Product

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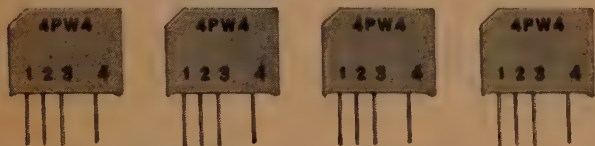


three-part pack brings you three-way gains!

Output increases, costs drop, quality climbs—with these General Electric fast-assembly components!

WHETHER your domain is automobile dashboards, radio and TV receivers, temperature controls, or what-have-you, the three units in this free new Sample Test Kit can point the way to big advantages in product improvement and manufacturing economy!

Here's what you'll get...



1. ENCAPSULATED R-C Network...

This new G-E development is actually several components in one unit, with performance comparable to individual components. Its thin ceramic plate, with a variety of resistor and capacitor patterns and their leads applied to customer requirements, is encapsulated in a compact, uniform phenolic case. This unit thus cuts space and solder requirements under those for individual components, in such applications as coupling, pulse-forming, and R-C filter networks. The encapsulation feature provides excellent resistance to humidity and corrosive agents, and the uniform size and surface of the case is especially suited for mechanized placement.

2. "THRU-CON" Print Wire Board...

With this advanced print wire, you can design a compact wiring pattern on *both* sides of the board *without* the cost of further processing to connect them. You gain from the "Thru-Con" additive production technique, which plates *through* the holes at the same time it plates the wiring pattern on the board.

3. "WEJCAPS" Leadless Capacitors...

Besides eliminating bothersome lead problems, "Wejcaps" offer low cost, small size, high durability, and high moisture resistance for such applications as antenna coupling networks, AVC and AGC networks, screen by-pass, and other medium tolerance circuits. The "Wejcaps" are simply inserted in a slot in a print wire board and soldered directly to the connection point.

Try these components yourself! If you're after faster production, higher quality assemblies, and lower cost—for present or prospective equipment—send *today* for this free Sample Test Kit. Address, on your letterhead please, General Electric Company, Specialty Electronic Components Department, Section 267, Auburn, N. Y.

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GENERAL ELECTRIC HAS A WIDE SELECTION OF SEMICONDUCTORS...CHECK BELOW FOR YOUR APPLICATION!

HIGH & LOW FREQUENCY GERMANIUM PNP TRANSISTORS



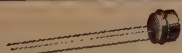
- ☐ High gain, medium power audio
- ☐ For USAF requirements
- ☐ Commercial equivalent to USAF requirements
- ☐ Computer switching
- ☐ Symmetrical switching
- ☐ Industrial & military linear amplifiers
- ☐ RF amplifiers
- ☐ Oscillator circuits
- ☐ Inexpensive audio amplifier types for the hobbyist

HIGH FREQUENCY GERMANIUM NPN TRANSISTORS



- ☐ RF and IF amplifier types for broadcast receivers
- ☐ Converters
- ☐ Industrial & military linear amplifiers
- ☐ Computer switching
- ☐ Inexpensive high frequency types for hobbyists

SILICON NPN HIGH FREQUENCY TRANSISTORS



- ☐ Computer switching, 150° C operating temperature, 200° C storage temperature
- ☐ High frequency amplifiers, 150° C operating temperature, 200° C storage temperature

Recent developments in germanium and silicon semiconductors are opening new applications every day. The Semiconductor Products Department of General Electric is continually expanding its line to meet new applications with ratings designed for your needs.

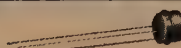
For more specific information on G-E semiconductor products which fill the applications you checked above, write the General Electric Company, Semiconductor Products, Section S2667, Electronics Park, Syracuse, New York.

SILICON UNIJUNCTION TRANSISTOR



- ☐ Operation up to 150° C, Replaces 2 junction transistors in computer circuits

NPN TETRODE TRANSISTOR



- ☐ Up to 150 megacycle operation

SILICON LEAD & STUD MOUNTED RECTIFIERS

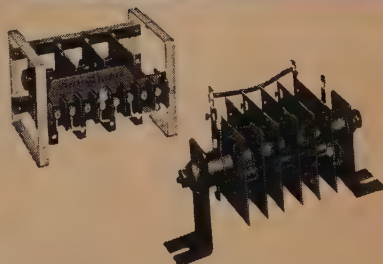


- ☐ 1N536 series silicon rectifiers, 750 ma @ 50° C, 250 ma @ 150° C, PIV ratings 50, 100, 200, 300, 400 and 500 volts
- ☐ 1N1115 series silicon, stud mounted rectifiers, 1.5 amps @ 85° C, 600 ma @ 150° C, PIV ratings 100, 200, 300 and 400 volts

GERMANIUM RECTIFIERS

- ☐ 1N91 series germanium rectifiers rated from 75 to 150 ma, maximum operating temperature 55° C, PIV ratings 100, 200 and 300 volts
- ☐ 1N315, USAF 1N315 & 1N368 germanium rectifiers characterized by an operating temperature up to 85° and low leakage current

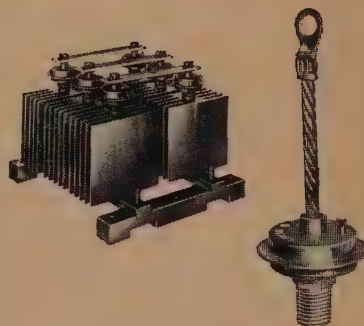
GERMANIUM STACK RECTIFIERS



Germanium stack rectifiers are available in stacks up to 12 fins. PIV ratings are 100, 200 and 300 volts. Extremely low power dissipation and forward voltage drop provide excellent efficiency and regulation.

- ☐ 4JA211 series, up to 1½ amps per fin
- ☐ 4JA3011 series, up to 10 amps per fin

SILICON HIGH CURRENT RECTIFIERS



- ☐ 4JA60 series silicon stud mounted rectifiers provide an operating current up to 85 amperes. Low forward voltage drop
- ☐ 4JA6011 series silicon stack rectifiers give an output up to 76.5 kilowatts, without forced air cooling, from less than ⅓ cubic foot

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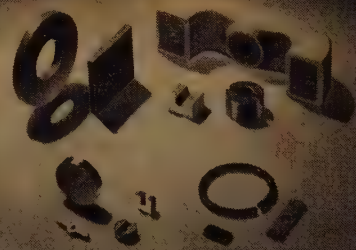
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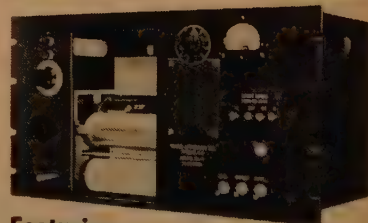
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Recorder - Model SL-4**



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- Ink recording, 4" wide chart
- Lever arrangement for chart speed selection
- Electronically controlled pen speed
- Interchangeable input potentiometers available for a variety of scale functions (db, Linear, square root, phon).

MODEL SL-4 can be supplied as MARINE RECORDER, in water-tight enclosure—for rugged naval and tropical requirements.

Bulletin will be sent upon request

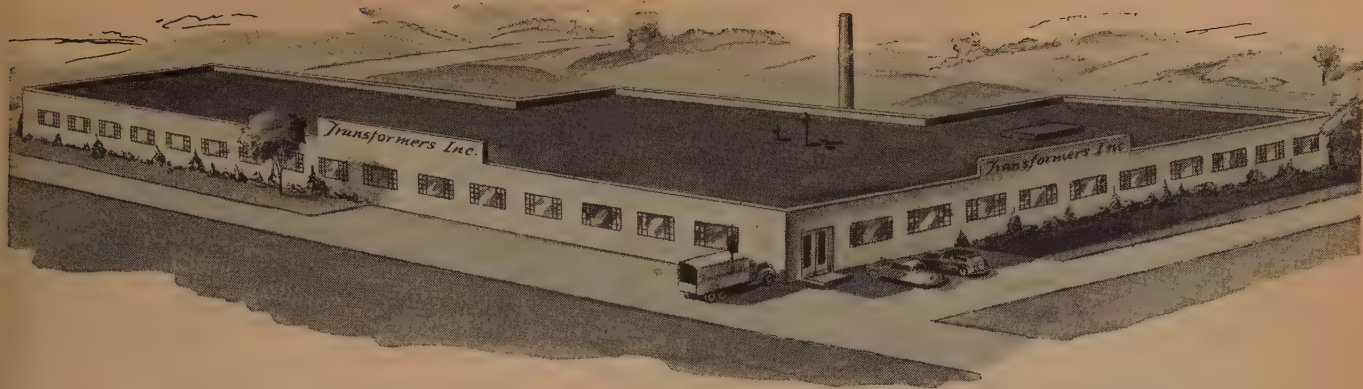
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STIRLING, NEW JERSEY

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FOR

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The New **TRANSFORMERS, INC.** *Plant*

SPECIAL PURPOSE TRANSFORMERS

to meet today's critical requirements demands highly specialized skills and equipment

**VOLTAGE REFERENCE
COMPUTER EXCITATION**
voltage ratio accuracy up to .001 %

•
**INSTRUMENT
AUDIO
PULSE
HYBRID
POWER**

and all the sub-classifications
**MAGNETIC AMPLIFIERS
RATIOMETERS
BRIDGES**
and special test equipment

The accuracy required in voltage reference transformers and computer excitation transformers demands exacting specifications, supervision and material control. In order that high precision transformers be acceptable they must have predictable performance for all temperature and load conditions. A specialized method has been developed at Transformers, Inc. to make this possible. The measurement of voltage ratio is not sufficient, data must be also obtained which will indicate in which manner the variables of a particular transformer is affected by temperature and changes in the load.

Functionally Designed for the Manufacture of Transformers

Manufacturing transformers requires special equipment which is unique in that it cannot be used for other purposes. In the layout of the plant of Transformers, Inc., three objectives have been closely aimed for: a laboratory capable, not only of measuring all the parameters of transformers, but making measurements on all types of electronic equipment in which transformers are to be used. The second objective was a Prototype plant or Sample Department complete and independent of the Production Department. The third objective was manufacturing space laid out in such a manner that complete control can be maintained on the quality of the transformer while it is in the various stages of manufacture.

MINIATURIZATION

Airborne equipment may require the same accuracy as ground equipment with the additional requirement of miniaturization. Miniaturization can only be achieved by the use of higher operating temperatures with a resulting loss of efficiency. Thus highly accu-

rate transformers can be designed and manufactured which operate at very high temperatures and are extremely small. Methods of encapsulating transformers in order to reduce weight have been developed at Transformers, Inc.



ENVIRONMENTAL TESTING

One chamber performs MIL-T-27 humidity cycling and Mon-mouth cold shock. Another chamber is a combination altitude and extreme cold chamber. Altitude up to 100,000 feet can be simulated. Temperatures as low as 100 degrees below zero fahrenheit can be readily obtained. Another installation not yet completed will perform vibration testing up to 3,000 cycles at any simulated altitude up to 125,000 feet and at any temperature from 125 degrees below zero to 190 degrees above zero.

PRETESTED PROTOTYPES

All operations necessary to the manufacture of a transformer can be performed independent of the Production Department. The personnel in the Prototype Department is specially trained to follow the design of new prototype transformers accurately. This highly specialized department is at your service to produce prototypes and samples at short notice.

IMPORTANT FEATURES OF TRANSFORMERS, INC. PRODUCTS GREATER ACCURACY

Transformers, Inc. have developed special equipment to permit the measurements of ratio to a greater accuracy than heretofore possible. In our laboratory we can measure voltage ratio with an accuracy of 5 parts per million with a sensitivity of one part per million. In addition we have developed special equipment for the measurement of phase angles as low as .001 milliradian.

RELIABILITY

The manufacturing processes adhered to by Transformers, Inc. insure greater reliability. First by the specialized impregnating methods (vacuum and pressure). Secondly, by the standards adopted to insure maximum rigidity of assembly. Thirdly, by the careful inspection of raw material.

MECHANICAL ACCURACY

In order to insure the accuracies we require for the mechanical dimensions for transformers, Transformers, Inc. has incorporated a complete metal working department. Through these facilities we are assured of mechanical perfections to within 5 thousandths of an inch for can dimensions and to within 1 thousandth of an inch for studs and other transformer components.

MINIMUM SIZE

It is of increasing importance for Airborne equipment to obtain optimum performance for minimum weight and size. The use of specialized core material and especially coated wires such as silicone coated wire and teflon insulated wire has permitted the design of transformers by Transformers, Inc. to minimum sizes. In addition we have developed special molded bobbins of high temperature material to obtain transformers without paper margins (which represent a loss of space) with resultant decrease in size and weight.



General laboratory covers approximately 5,000 sq. ft., has the necessary equipment to make measurements from .01 cycles to 50 megacycles. There is sufficient equipment available that all the set-ups can be operated simultaneously without interference.



Equipment used in the design of pulse transformers to eliminate the "cut and try" method generally employed.



Testing pulse transformers. This set-up can simulate the operating conditions of pulse transformers up to one million volts.



A detailed view of the automatic winding machines.

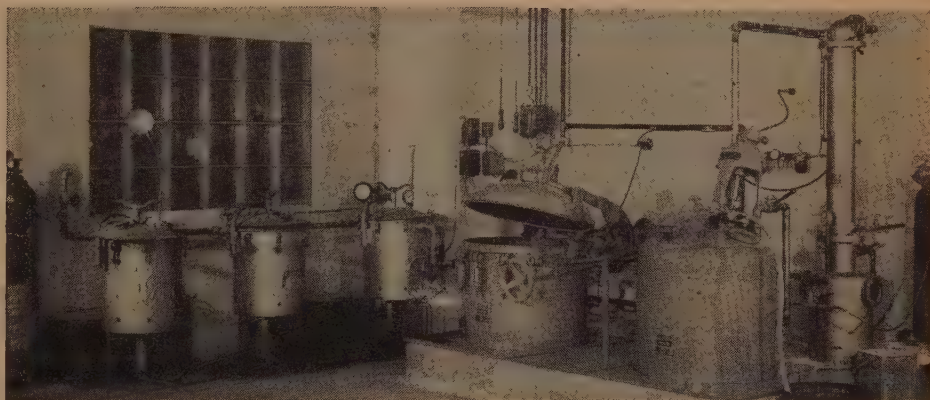


MEASURED ACCURACY IN TRANSFORMER WINDING

SEMI-AUTOMATIC WINDING MACHINE (PROTOTYPE WORK). The Prototype and Sample Department covers approximately 2,500 square feet and is completely equipped to perform all operations from winding to finishing independently of the Production Department. The illustration shown is the hand winding of very heavy wire. The proper tension is obtained by a tension device behind the operator.

VACUUM IMPREGNATION

Production vacuum impregnated in these tanks and then subjected to a pressure of 100 lbs. per square inch while they are still submerged in the varnish. This insures complete penetration of the varnish. The multiplicity of tanks permits simultaneous vacuum impregnation with different resins.



TRANSFORMER POTTING

A section of the Production Potting Department. All transformers are pre-heated prior to potting to insure the removal of moisture and the absence of voids.



T R A N S F O R M E R S I N C O R P O R A T E D

200 STAGE ROAD • VESTAL • NEW YORK

DESIGN ENGINEERING FACILITIES

Transformers, Inc. is equipped with the most complete laboratory of any transformer company in the United States. It is possible to make measurements of all parameters at all frequencies from .01 cycles per second to 50 megacycles. In addition Transformers, Inc. has complete environmental test chambers which permit testing of transformers at simulated altitudes up to 100,000 ft. and at temperatures from 100 degrees below zero to 200 degrees above zero fahrenheit. There is vibration equipment which permits the vibration testing from 5 cycles up to 3,000 cycles per second. Standard transformers are designed on the basis of the experience gathered from nomographs and our standard design specifications. We are constantly confronted with design of radically different transformers. Such transformers can only be acceptable in the field if they are subjected to complete tests for electrical specifications and under all environmental conditions. The final design is only acceptable when it is thoroughly tested.

FOR ALL BRANCHES OF THE MILITARY

Transformers, Inc. have been specialists in designing transformers for special military applications. These transformers must meet the rigid MS and MIL-T-27A requirements. We have been suppliers to government contractors on transformers that meet these exacting requirements.

FOR ALL INDUSTRIAL APPLICATIONS

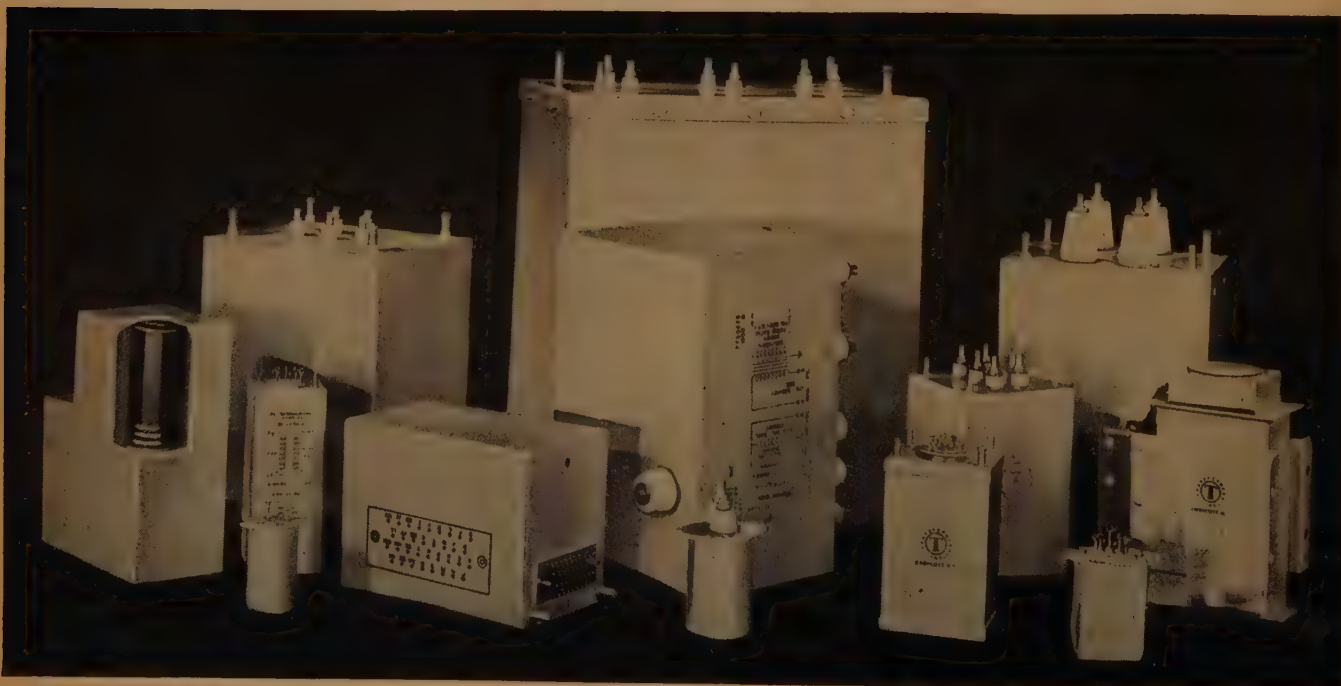
Computer transformers and magnetic amplifiers made by Transformers, Inc. have found wide application in industrial controls and automation equipment.

Transformers, Inc. has been a leading supplier for the highly specialized transformers required in computers. Transformers, Inc. is equipped to manufacture all types of magnetic memory equipment.

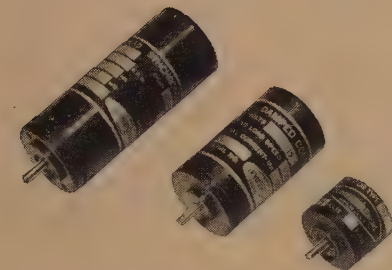
200 STAGE ROAD



VESTAL • NEW YORK

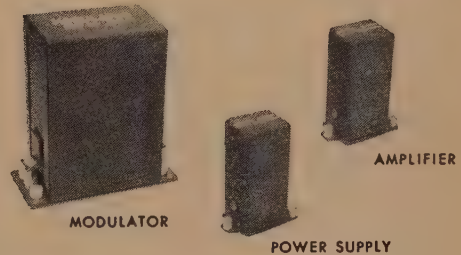


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POWER SUPPLY

AMPLIFIER

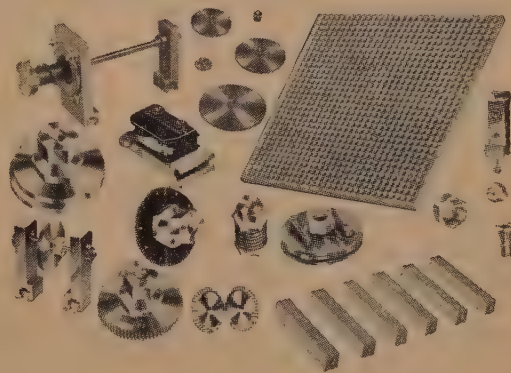
60 CYCLE COMPONENTS



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POWER SUPPLY

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These proven components *are available now*. We've designed them—allowing you to concentrate your time on the application. The 60 and 400 cycle components, together with the companion instrument motors and the extensive line of Mechanical Development Apparatus, offer the Design Engineer an assortment of ready-made units that are ideally suited for closed loop control applications.

These packaged function components are plug-in units permitting quick and easy replacement *anywhere*.

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Servomechanisms, Inc. manufactures these units for use in its own analog computers and control systems. Now, they are available as individual units. All of the components meet applicable military specifications for both prototype and production deliveries.

The design philosophy of packaged functions; the years of manufacturing experience, and the constant improvement of the basic units, all add up to optimum adaptability, performance and reliability.



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Power Supplies

700 SERIES VARIABLE VOLTAGE—HIGH CURRENT 3-325 Volts @ 0 to 1.5 Amps.

MODEL 700-A



- Less than .01 volts variation from N.L. to 1.5 amps.
- Less than 500 microvolts ripple
- Continuously variable
- Compact

A new design philosophy enables the 700 series of D. C. power supplies to provide excellent regulation. They are compact and continuously variable, with a wide continuous range of output voltage control. Another basic advantage of this power supply is that the voltage across the series

tubes is kept constant independent of line voltage variations, load changes, or manual variation of the output voltage. In this way, the series tubes always have the proper operating voltage, and the regulator never loses regulation even with a full 1.0 ampere step change in load. Although this power supply is relay-rack mounted, the front panel is hinged and can be dropped down without removing the supply from the relay rack.

Designed for continuous operation, this power supply will provide the *real dependability* you need.

Price:\$695.00

800 SERIES LOW VOLTAGE—HIGH CURRENT Model 800-A Twin 2-30 Volts @ 1.0 Amps. Model 800-B 2-30 Volts @ 2.5 Amps.

The 800 series consists of a line of highly regulated low voltage D. C. power supplies that are completely transistorized. Model 800-A is a portable bench-type supply that incorporates two completely independent, continuously variable 2 to 30 volt, 0 to 1.0 ampere power supplies. When required, these supplies can be connected in series to obtain a single 4 to 60 volt supply at 1.0 ampere. Model 800-B is also a portable bench-type supply, continuously variable from 2 to 30 volts, with a 2.5 ampere capacity.

Both models in the 800 series feature automatic short-circuit and overload protection. When the output terminals have been inadvertently short-circuited, a protection circuit opens the regulator loop and prevents the output current from flowing. At approximately four second intervals, the supply endeavors to re-establish the output voltage, and it will succeed when the overload or short circuit condition has been removed.

The response to a sudden no load to full load change does not break the regulator loop. A no load to 1.0 ampere current change produces less than 50 millivolts change in output voltage, and this output voltage variation persists for less than 400 microseconds.

- Short circuit and overload protection with automatic reset
- Less than 500 microvolts ripple
- Less than .01 volts variation from no load to full load
- Uses transistor circuitry throughout



MODEL 800-A



MODEL 800-B

HARRISON LABORATORIES, INC.

Power Supplies



200 SERIES

PLUG-IN—HIGH CURRENT 100-315 Volts @ 0 to 1.5 Amps.

MODEL 200-C

Model 200-C is our "plug-in" 100 to 315 volt, 0 to 1.5 ampere, highly regulated D. C. power supply. This supply is packaged in two units—a rectifier (H-Lab Type 1C), and a regulator (H-Lab Type 1B). The rectifier supplies the unregulated power, and the regulator maintains the output voltage at a constant level.

The 200-C is not a continuously variable supply, but is designed for specific applications where the same voltage is apt to be needed for long periods of time. Output voltage variations of greater than 20 volts from any nominal value between 100 and 300 volts require the changing of a tap on a transformer of the 1C rectifier and the changing of four resistors in the Type 1B regulator.

Model 200-D, with output voltage from 100 to 300 volts, 0 to 800 milliamperes, is also a "plug-in" highly regulated supply, but is a single unit. Thus, three complete 800 milliampere supplies can be housed in the Type 10 relay rack mounting case shown. The 200-D is also highly regulated, and has less than .01 volts output voltage variation from N. L. to 800 milliamperes. The ripple is less than 1500 microvolts, and the output voltage varies less than $\pm .03$

- Less than 1000 microvolts ripple
- Less than .01 volts variation from N.L. to 1.5 ampere load



Type 2C Rectifier and two Type 2B Regulators in a Type 10 Mounting Case

volts for a $\pm 10\%$ change in line voltage. Although not pictured, the appearance is essentially the same as the Type 2B regulator shown.

Prices:	200-C	
	Type 2C Rectifier.....	\$255.00
	Type 2B Regulator.....	\$365.00
	200-D	\$275.00
	Type 10 Rack Mounted Case.....	\$168.00

400 SERIES

RACK MOUNTED—HIGH CURRENT 100 to 315 Volts @ 0 to 1.5 Amps.

MODEL 400-D



- Less than 1000 microvolts ripple
- Less than .01 volts variation from N.L. to 1.5 amperes

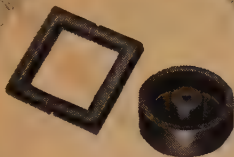
Model 400-D is a relay rack mounted 1.5 ampere power supply that may be used at any voltage between 100 and 315 volts. The output voltage is not continuously variable, but this supply is designed for those specific applications

where the voltage is apt to be set and left for long periods. Output voltage variations of greater than 20 volts from any nominal value between 100 and 315 volts require the changing of a tap on a transformer and the changing of four resistors. Designed for continuous use, the 400 series has found its greatest application in permanently powered equipment.

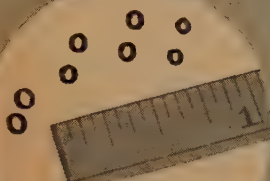
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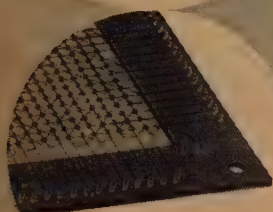
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SHORT FORM CATALOG



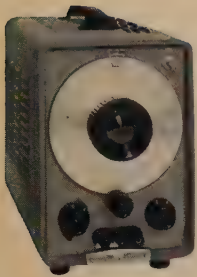
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-hp- Oscillators—0.008 to 10,000,000 cps

Hewlett-Packard now offers 12 high quality, fast and accurate oscillators, each an exceptional value and each engineered to do a specific job best. Each incorporates the famous RC resistance capacity circuit pioneered by *-hp-*. This circuit makes possible instruments that are highly stable, wide range, compact and portable; instruments that are extremely simple to operate and require no tedious re-setting or adjustment during operation.

-hp- 200 Series Audio Oscillators



For audio and ultrasonic measurements, *-hp-* offers popular Models 200AB and 200CD. Both have highest stability and accurate tuning circuits. Low impedance operating levels plus superior insulation guarantee long years of trouble-free dependability. Operation is simple; just three controls; no zero setting necessary. *-hp-*

200AB, 20 cps to 40 KC, \$130.00. *-hp-* 200CD, 5 cps to 600 KC, \$160.00.

-hp- 207A Sweep Oscillator



This new audio oscillator provides continuous single-sweep frequency coverage from 20 cps to 20 KC. No band switching is needed; dial accuracy is 4%, and the instrument also provides a flexible 10 v/600 ohm output usable balanced or with one side grounded. Frequency response is ± 1.0 db full

range, distortion and hum are less than 1%. *-hp-* 207A may be swept by band, motor driven, tuned remotely or coupled to a recorder. *-hp-* 207A, \$275.00.

Instrument	Primary Uses	Frequency Range	Output	Price
<i>-hp-</i> 200AB	Audio tests	20 cps to 40 KC	1 watt/24.5 v	\$130.00
<i>-hp-</i> 200CD	Subsonic through supersonic audio and ultrasonic tests	5 cps to 600 KC	160 mw or 10 v/600 ohms; 20 v open circuit	160.00
<i>-hp-</i> 200J	Interpolation, frequency measurements	6 cps to 6 KC	160 mw/10 v	275.00
<i>-hp-</i> 200T	Telemetry, carrier current tests	250 cps to 100 KC	160 mw or 10 v/600 ohms; 20 v open circuit	350.00
<i>-hp-</i> 201C	High quality audio tests	20 cps to 20 KC	3 w or 42.5 v/600 ohms	225.00
<i>-hp-</i> 202A	Low frequency measurements	0.008 to 1200 cps	28 mw or 30 v p-p/4000 ohms	465.00 Δ
<i>-hp-</i> 202C	Servo equipment tests, measurements	1 cps to 100 KC	160 mw or 10 v/600 ohms	300.00
<i>-hp-</i> 205AG	High power audio tests, gain measurements	20 cps to 20 KC	5 watts	440.00 Δ
<i>-hp-</i> 206A	High quality, high accuracy audio tests	20 cps to 20 KC	+ 15 dbm	565.00 Δ
<i>-hp-</i> 207A	Audio sweep generation	20 cps to 20 KC	160 mw or 10 v/600 ohms	275.00
<i>-hp-</i> 233A	Carrier oscillator—current tests	50 cps to 500 KC	3 w/600 ohms	475.00
<i>-hp-</i> 650A	Wide range video tests	10 cps to 10 MC	15 mw/3 v	490.00 Δ

Δ Rack mounted instruments available at \$15.00 less.

-hp- 202A Function Generator

Compact, multi-purpose source of transient-free test voltages from 0.008 cps to 1,200 cps. Continuously variable through 5 bands; offers exceptional stability (within 1%) and distortion less than 1% to 100 cps. Sine, square or triangular waves may be selected by a front panel switch; the 30 volt output peak-to-peak is constant for all wave forms and over full frequency range. *-hp-* 202A, \$465.00.

-hp- 650A Test Oscillator

Covering 10 cps to 10 MC, *-hp-* 650A is a highly stable, wide band instrument for audio, supersonic, video and rf measurements. Output is flat within 1 db full range; voltage range is 0.00003 to 3 v. In addition to 600 ohm impedance, voltage divider provides a 6 ohm impedance. Distortion less than 1% to 100 KC; stability $\pm 2\%$ to 100 KC. \$490.00.

-hp- Distortion, Wave Form Analyzers—20 cps to 20 KC

-hp- 330B Distortion Analyzer



Measures distortion as low as 0.1% from 20 cps to 20 KC; also measures noise voltages down to 100 μ v. Sensitivity is high; distortions of 0.3% are measured full scale and levels of 0.1% are readable

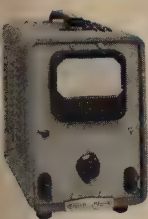
accurately. Frequency calibration accurate within $\pm 2\%$ full range. Includes a 20 db amplifier, oscilloscope terminals and precision 10 cps to 100 KC vacuum tube voltmeter usable separately. \$410.00.

Instrument	Primary Uses	Frequency Range	Characteristics	Price
<i>-hp-</i> 300A	Wave form analyzer	30 cps to 16 KC	Variable selectivity; measuring range 1 mv to 500 v	\$775.00
<i>-hp-</i> 330B	Measures total audio distortion	20 cps to 20 KC	Includes input amplifier, VTVM	410.00 Δ
<i>-hp-</i> 330C	For FM broadcast measurements	20 cps to 20 KC	Special VU meter to meet F.C.C. requirements	440.00 Δ
<i>-hp-</i> 330D	For AM, FM broadcast measurements	20 cps to 20 KC	AM detector and VU meter to meet F.C.C. requirements	455.00 Δ

Δ Rack mounted instruments available at \$15.00 less.

-hp- Vacuum Tube Voltmeters—10 to 700,000,000 cps

-hp- 400D Vacuum Tube Voltmeter



Best *-hp-* voltmeter ever built! Covers all frequencies 10 cps to 4 MC. Extremely sensitive, wide range, accurate within 2% to 1 MC, measures 0.1 mv to 300 v. Direct reading in dbm. 10 megohm input impedance insures negligible loading on circuits under test. New amplifier circuit with mid-range feedback assures utmost stability, freedom from change due to external conditions. \$225.00.

Instrument	Primary Uses	Frequency Range	Voltage Range	Input Impedance	Price
<i>-hp-</i> 400AB	General purpose ac measurements	10 cps to 600 KC	0.003 to 300 v 11 ranges	10 megohms 25 μ mf shunt	\$200.00
<i>-hp-</i> 400D	Wide range ac measurements High sensitivity	10 cps to 4 MC	0.001 to 300 v 12 ranges	10 megohms 15 μ mf shunt	225.00
<i>-hp-</i> 400H	High accuracy wide range ac measurements	10 cps to 4 MC	0.001 to 300 v 12 ranges	10 megohms 15 μ mf shunt	325.00
<i>-hp-</i> 410B	Audio, rf, VHF measurements; dc voltages; resistances	dc; ac—20 cps to 700 MC	0.1 to 300 v 7 ranges	dc—122 megohms; ac—10 megohms/ 1.5 μ mf	245.00

-hp- 410B Vacuum Tube Voltmeter



All-purpose test instrument, range 20 cps to 700 MC. Also serves as dc VTVM with over 100 megohms impedance, or ohmmeter for measurements 0.2 to 500 megohms. Input capacity 1.5 μ mf, 10 megohms input impedance; employs radical diode probe

which virtually eliminates circuit loading. Industry's most versatile precision voltmeter. \$245.00.

-hp- 400H Vacuum Tube Voltmeter



Need extreme accuracy of 1%? New *-hp-* 400H covers 10 cps to 4 MC, has 5" meter with mirror scale, measures voltages 0.1 mv to 300 v. 10 megohm resistance minimizes circuit loading, amplifier with 56 db feedback insures lasting stability. Direct reading in db or v. Extremely high quality throughout. \$325.00.

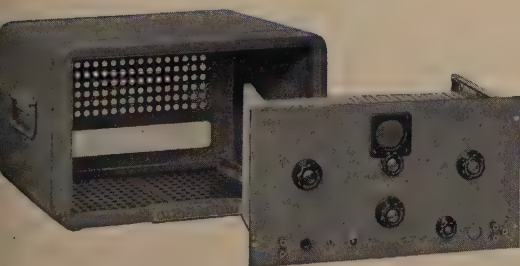
-hp- 400AB Vacuum Tube Voltmeter



Utmost utility, dependability, dollar value. Covers 10 cps to 600 KC, measures from 0.3 mv to 300 v. High stability, sensitivity, accuracy $\pm 2\%$ full scale from 20 cps to 100 KC. High input impedance; meter reads direct in volts and dbm. \$200.00.

Instrument	Features	Price
<i>-hp-</i> 452A Capacitive Voltage Divider	For all <i>-hp-</i> ac VTVM. 25 cps to 20 MC. Division 1000:1	\$100.00
<i>-hp-</i> 452-95A Adapter	Connects <i>-hp-</i> 452A to <i>-hp-</i> 410B VTVM probe	10.00
<i>-hp-</i> 453A Capacitive Voltage Divider	For <i>-hp-</i> 410B VTVM only. Division 100:1	25.00
<i>-hp-</i> 454A Capacitive Voltage Divider	For <i>-hp-</i> 400D and 400H only. Division 100:1	25.00
<i>-hp-</i> 455A Probe Coaxial "T" Connector	For <i>-hp-</i> 410B VTVM. Measures voltages between conductor and sheath of 50 ohm transmission line.	35.00
<i>-hp-</i> 458A Probe Coaxial "N" Connectors	For <i>-hp-</i> 410B VTVM. Measures volts at open end of 50 ohm transmission line.	25.00
<i>-hp-</i> 459A DC Resistive Voltage Multiplier	For <i>-hp-</i> 410B VTVM. For measuring high dc voltages safely. Multiplies 1:100	25.00
<i>-hp-</i> 470 A to F Shunt Resistors	For <i>-hp-</i> 400 series VTVM. For measurement of current.	470A - 15.00 470B-F - 7.50

Cabinet, End Frame or Rack Mounting



Most *-hp-* equipment with standard 19" panels can be mounted in lightweight, streamlined all metal cabinets. The same instruments are normally also usable with end frames. Smaller *-hp-* instruments such as 200 CD, 400D, 410B, 715A, etc., are also delivered normally in lightweight metal cabinets. However, many such instruments can be twin-mounted in *-hp-* AC-2A/B Dual Rack Mounts. See your *-hp-* field representative or write direct for details.

Data subject to change without notice. Prices f. o. b. factory.

Precision Electronic Counter

frequency 10 cps to 220 MC

time interval 1 μ sec to 100 days

period 0 cps to 10 KC



-hp- 525A
Frequency Converter
10 cps to 100 MC



-hp- 526A
Video Amplifier
10 cps to 10 MC



-hp- 526B
Time Interval Unit
1 μ sec to 10⁷ sec



-hp- 526C
Period Multiplier
0 to 10 KC

Add plug-in units to fill future measuring needs

-hp- 524B Counter **with -hp- 525B** **Frequency Converter**

Direct, instantaneous automatic readings, easy use by non-technical personnel, 0.1 microsecond resolution, accuracy $1/1,000,000 \pm 1$ count, high sensitivity and high impedance—these are but a few of the unique quality and versatility features of *-hp- 524B* Counter and associated plug-in units.

With *-hp- 524B*, you buy only the counting facilities you need now; later add inexpensive plug-ins to triple or quadruple the usefulness of the instrument.

The basic *-hp- 524B* Counter reads frequency 10 cps to 10 MC over 5 selected periods. Display time is variable, counts are automatically reset, action is repetitive.

-hp- 525A Frequency Converter extends the 524B's direct-reading range to 100 MC with no loss in accuracy. *-hp- 525B* converts the 524B for direct readings 100 to 220 MC. *-hp- 526A* Video Amplifier increases sensitivity to 10 mv for low power frequency measurement.

Instrument	Primary Uses	Frequency Range	Characteristics	Price
<i>-hp- 524B</i> Frequency Counter	Frequency Period measurements	10 cps to 10 MC (Freq.) 0 cps to 10 KC (Period)	Direct reading, no interpolation, stability about 2/1,000,000/week	\$2,150.00 ■
<i>-hp- 525A</i> Frequency Converter	Extends 524B's range to 100 MC; increases basic sensitivity	10 cps to 100 MC	Accuracy ± 1 cps $\pm$ stability; 0.1 v rms min. input	250.00
<i>-hp- 525B</i> Frequency Converter	Extends 524B's range from 100 to 220 MC; high sensitivity	100 MC to 220 MC	Accuracy ± 1 cps $\pm$ stability; 0.2 v rms min. input	250.00
<i>-hp- 526A</i> Video Amplifier	Increases 524B's sensitivity to 10 millivolts	10 cps to 10 MC	Accuracy same as basic counter; 10 mv rms min. input	150.00
<i>-hp- 526B</i> Time Interval Unit	Measures interval 1 μ sec to 100 days	1 μ sec to 10 ⁷ sec	Accurate 0.1 μ sec $\pm$ 0.0001%	175.00
<i>-hp- 526C</i> Period Multiplier	Period measurement	Extends range of 524B to measure 10,000 periods	Greater accuracy in period measurement	225.00

■ Rack mounted instrument available for \$25.00 less.

-hp- 526B Time Interval Unit permits the 524B to measure interval 1.0 μ sec to 100 days with accuracy of 0.1 μ sec $\pm$ 0.001%; reads in seconds, msec or μ sec. *-hp- 526C*

Period Multiplier allows period average measurements in steps of 10 to a 10,000 period average; thus insuring greater accuracy of midrange frequency measuring.

-hp- 540A Transfer Oscillator

Measure frequency to 12 KMC on pulsed, AM, FM, CW and noisy signals!

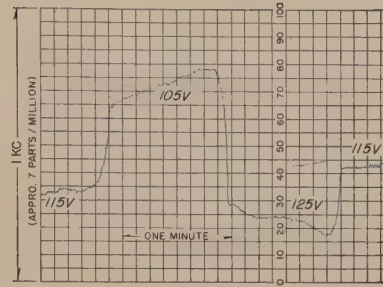
With just two instruments *-hp- 540A* Transfer Oscillator and 524B Counter (plus 525B converter) you measure to 12 KMC; get counter accuracy and amazing convenience. Complex instrument arrangements and tedious trial-and-error "guesstimates" are eliminated. Even when the approximate frequency of a test signal is unknown; a simple calculation employing two or more harmonics leads to swift and accurate measurement.

The 540A-524B system's accuracy approaches 1 part per 1,000,000 for stable CW signals. On pulsed signals, accuracy is governed by carrier frequency and pulse lengths. On noisy or intense AM signals, the transfer oscillator system with *-hp- 540A* often provides the only means of accurate measurement. Over-all system accuracy is better than 10 times that of the best microwave wavemeters. Model 540A, \$615.00 Δ .

Δ Rack mounted instrument available at \$15.00 less.



New -hp- 560A Digital Recorder



Frequency stability
vs. line voltage;
150 MC oscillator

New -hp- 560A provides a continuous digital record for your -hp- frequency counter. Since 560A is a slave to its counter, it delivers accuracy identical with counter. Printing rate is five, 11-digit lines per second. Secondary or coding data may be printed on the same line as primary data. Instrument may be controlled by electronic or electro-

mechanical devices; it includes an analog output for strip chart recorders; strip chart will never be driven off scale. Expanded scale recordings may be made with full scale sensitivity as great as $1/10^7$.

-hp- 560A, \$1,390.00 (11-digit lines)

-hp- 560A, \$1,265.00 (6-digit lines)

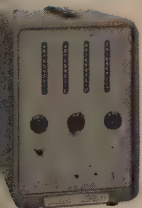
Other -hp- Frequency Measuring and Monitoring Equipment

-hp- 500B/C Frequency Meters



Directly measures frequency of voltages 3 cps to 100 KC; expanded scale allows any 10% or 30% of range to be measured full scale. Sensitivity 0.2 v rms (sine waves) 1 v peak for pulses. Input impedance 1 megohm with 40 μ f shunt; accuracy independent of line voltage changes. Also available as -hp- 500C, calibrated for direct reading in rpm. -hp- 500B/C, \$285.00.

-hp- 521A/C Industrial Counters



Most useful, accurate, low cost industrial counter. Measures frequency, speed, rpm, random events, other phenomena. Direct readings 1 cps to 120 KC. Time of count 0.1 or 1.0 seconds; variable display time. Also offered as 521C, 5-place registration, three gate times, crystal-controlled time base. -hp- 521C, \$650.00. -hp- 521A, \$475.00.

-hp- 522B Electronic Counter



Compact, low cost, versatile instrument for frequency, period or time measurements. Measures frequency 10 cps to 120 KC, time interval 10 μ sec to 10^6 sec. Reads direct in cps, KC, seconds or milliseconds. Count automatically reset, action repetitive. Stability of time base 10/1,000,000 per week. Easily used by untrained personnel. \$915.00 Δ .

-hp- 523B Electronic Counter



Revolutionary all-purpose counter measures frequency 10 cps to 1.1 MC, time interval 3 μ sec to 27.8 hours, period 0.00001 cps to 10 KC. Stability 2/1,000,000 per week. Results displayed in sec, msec, μ sec or KC; automatic decimal. Display time variable 0.1 sec to 5 sec or indefinitely. Accuracy ± 1 count plus crystal stability. 5 gate times, usable with 100 KC primary standard. \$1,175.00.

Instrument	Primary Uses	Frequency Range	Characteristics	Price
-hp- 100D Secondary Standard	Frequency, time measurements	100 KC, 10 KC, 1 KC, 100 cps, 10 cps	Stability 1/1,000,000 (short-time). Sine or rectangular output. Marker pips	\$ 615.00 Δ
-hp- 335E TV Monitor	Aural and visual carrier monitoring; black and white or color	Channels 2 to 83	Aural deviation ± 3 KC; video deviation ± 3 KC; accuracy ± 500 cps approx.	2,050.00
-hp- 500B Electronic Frequency Meter	Rapid frequency measurements	3 cps to 100 KC	9 ranges $\pm 2\%$ accuracy. Input 0.2 to 250 volts	285.00
-hp- 500C Electronic Frequency Meter	Rpm measurements	180 to 6,000,000 rpm	Similar to 500B but calibrated in rpm	285.00
-hp- 506A Optical Tachometer Pickup	Rps and rpm measurement	300 to 300,000 rpm	Phototube and light source; output 1 v rms	100.00
-hp- 508A Tachometer Generator	Shaft speed measurement	15 to 40,000 rpm	Output 60 cycles per revolution	100.00
-hp- 508B Tachometer Generator	Shaft speed measurement	15 to 40,000 rpm	Output 100 cycles per revolution	100.00
-hp- 508C Tachometer Generator	Shaft speed measurement	15 to 40,000 rpm	Output 120 cycles per revolution	100.00
-hp- 508D Tachometer Generator	Shaft speed measurement	15 to 5,000 rpm	Output 360 cycles per revolution	100.00
-hp- 520A Nuclear Scaler	For counting high-rate pulses	Capacity 100 counts in 2 decades. 10,000,000 pps counting rate	100:1 divider for operation of low speed scalars	615.00 Δ
-hp- 521A Industrial Electronic Counter	Measure frequency, speed	1 cps to 120 KC	Direct reading, accuracy within ± 1 count $\pm 0.1\%$, 4 place registration	475.00
-hp- 521C Industrial Electronic Counter	Measure frequency, speed	1 cps to 120 KC	Direct reading, accuracy within ± 1 count $\pm 0.01\%$, 5 place registration	650.00
-hp- 522B Electronic Counter	Frequency, period, time interval measurements	10 cps to 120 KC	Direct reading, accuracy ± 1 count $\pm 0.001\%$	915.00 Δ
-hp- 523B Electronic Counter	Frequency, period, time interval	10 cps to 1.1 MC	Direct reading, accuracy ± 1 count $\pm 2/1,000,000$	1,175.00

Δ Rack mounted instrument available for \$15.00 less.

-hp- Signal Generators—10 to 21,000 MC

-hp- 608D vhf Signal Generator



10 to 420 MC. Highest stability. No incidental FM or frequency drift. Calibrated output 0.1 μ v to 0.5 v throughout range. Built-in crystal calibrator provides frequency check accurate within 0.01% each 1 and 5 MC. Master-oscillator, intermediate and output amplifier circuit design. Premium quality performance, direct calibration, ideal for aircraft communications equipment testing. \$1,050.00.

-hp- 608C vhf Signal Generator. High power (1 v max.) stable, accurate generator for lab or field use. 10 to 480 MC. Ideal for testing receivers, amplifiers, driving bridges, slotted lines, antennas, etc. \$950.00.

-hp- 626/628A shf Signal Generators



New instruments, bringing high power, wide range, convenience and accuracy to 10 to 21 KMC range. Frequencies, output voltage directly set and read. Output 10 to 20 db better than previous spot-frequency sets SWR better than 1.2 at 0 dbm and lower. Internal pulse, FM or square wave modulation; also external pulsing or FM'ing. -hp- 626A, 10 to 15.5 KMC, \$3,250.00. -hp- 628A, 15 to 21 KMC, \$3,000.00.

Instrument	Frequency Range	Characteristics	Price
-hp- 608C	10 to 480 MC	Output 0.1 μ v to 1 v into 50 ohm load. AM, pulse, or CW modulation. Direct calibration	\$ 950.00
-hp- 608D	10 to 420 MC	Output 0.1 μ v to 0.5 v. Incidental FM 0.001% entire range	1,050.00
-hp- 612A	450 to 1,230 MC	Output 0.1 μ v to 0.5 v into 50 ohm load. AM, pulse, CW or square wave modulation. Direct calibration	1,200.00
-hp- 614A	800 to 2,100 MC	Output 0.1 μ v to 0.223 v into 50 ohm load. Pulse, CW or FM modulation. Direct calibration	1,950.00
-hp- 616A	1,800 to 4,000 MC	Output 0.1 μ v to 0.223 v into 50 ohm load. Pulse, CW or FM modulation. Direct calibration	1,950.00
-hp- 618B	3,800 to 7,600 MC	Output 0.1 μ v to 0.223 v into 50 ohm load. Pulse, CW, FM or square wave modulation. Direct calibration	2,250.00
-hp- 620A	7,000 to 11,000 MC	Output 0.1 μ v to 0.223 v into 50 ohm load. Pulse, FM or square wave modulation. Direct calibration	2,250.00
-hp- 623B	5,925 to 7,725 MC	Output 70 μ v to 0.223 v into 50 ohm load. FM or square wave modulation. Separate power meter and wave meter section	1,750.00
-hp- 624C	8,500 to 10,000 MC	Output 3.0 μ v to 0.223 v into 50 ohm load. Pulse, FM or square wave modulation. Separate power meter and wave meter section	2,265.00 Δ
-hp- 626A	10 to 15.5 KMC	Output 10 dbm to -90 dbm. Pulse, FM, or square wave modulation. Direct calibration	3,250.00
-hp- 628A	15 to 21 KMC	Output 10 dbm to -90 dbm. Pulse, FM, or square wave modulation. Direct calibration.	3,000.00

Δ Rack mounted instrument available for \$15.00 less.

-hp- Swept Frequency Oscillators

-hp- 686A Electronic Sweep Oscillator



Totally new kind of backward-wave device eliminating sweep motors, tuning plungers, range limitations, etc. Covers all or part of X-band with flexible, quiet electronic sweep.

Simple to operate, direct reading, continuously adjustable sweep width and rate, 10 mw output minimum, frequency sweep linear with time. Has slow sweep for recorders; fast for oscilloscope; single sweep manually started or externally triggered, external FM, AM modulation. Ultimate in X-band sweep oscillators, \$2,250.00.

Instrument	Frequency Range	Characteristics	Price
-hp- 670SM	2.6 to 4 KMC	Automatic adjustable motor-driven sweep, full frequency band coverage, output 10 mw full range, full modulation capabilities, direct-reading frequency dial.	\$1,175.00 with motor
-hp- 670GM	4 to 6 KMC		1,175.00 with motor
-hp- 670JM	5.85 to 8.2 KMC		1,175.00 with motor
-hp- 670HM	7 to 10 KMC		1,175.00 with motor
-hp- 686A	8.2 to 12.4 KMC	Electronically swept; variable sweep width and rate. Output 10 mw to 0. Pulse, square wave, FM and AM modulation.	2,250.00

-hp- Square Wave and Pulse Generators

-hp- 212A Pulse Generator



Provides continuously variable, high power "fast pulses" of superior wave form. Combines broad general usefulness with 0.02 μ sec rise and decay time to meet requirements

of radar, TV and nuclear work. Pulse length variable 0.07 to 10 μ sec; minimum overshoot; 50 watt peak power (50 v to 50 ohms load). Low impedance means accurate pulses can be delivered at a distance from the instrument. Repetition rate variable 50 to 5,000 pps; controlled internally or externally. Synchronizing pulse available in advance of, or following output pulse. \$565.00 Δ .

Instrument	Primary Uses	Frequency Range	Characteristics	Price
-hp- 211A	Square Wave Generator	1 cps to 1 MC	Output 7 v p-p across 75 ohms or 55 v p-p across 600 ohms	\$265.00
-hp- 212A	Pulse Generator	50 to 5,000 pps. 0.02 μ sec rise time	Pulse length 0.07 to 10 μ sec, output 50 v to 50 ohm load	565.00 Δ

Δ Rack mounted instrument available for \$15.00 less.

Microwave Impedance Measuring Equipment



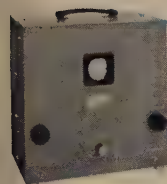
-hp- 416A Ratio Meter

Automatically combines forward and reverse signals and displays their ratio directly, irrespective of amplitude variations. Contains rf power monitor indicating proper power level. Rear terminal signal available to operate oscilloscope or recorder. Suitable for single and swept frequency operation. \$450.00△.



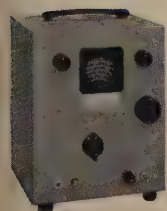
-hp- 415B Standing Wave Indicator

For all waveguide and coaxial slotted sections. Gives readings in SWR or db. Single frequency operation; 315 to 2,000 cps. Low noise level, 0.1 μ v (full scale) sensitivity, 60 db. calib. attenuator. \$200.00.



-hp- 803A VHF Bridge

Provides direct impedance measurements in vhf range, 2 to 2,000 ohms, -90° to $+90^\circ$ phase angle. Wide frequency range 52 to 500 MC; makes measurements down to 5 MC and up to 1,000 MC. Fast, simple to use. \$495.00.



-hp- 417A VHF Detector

Super-regenerative (AM) receiver covering all frequencies from 10 to 500 MC in 5 bands. Designed for use with -hp- 803A Bridge. 5 μ v sensitivity full range. Single frequency control, reads direct in MC. \$250.00.

Microwave Power Measuring Equipment



-hp- 430C Microwave Power Meter

No computations! Provides instantaneous, automatic power readings *direct* in dbm or mw at all frequencies for which there are suitable bolometer mounts. For CW measurements, uses either 1/100 amp. fuse or Sperry 821 barretter. Also measures CW or pulsed power with negative coefficient thermistor. Provides up to 16 ma bias current. Operates with all mounts in adjacent table. \$250.00.

-hp- 764D-767D Dual Directional Couplers



New high directivity dual coaxial couplers make reflectometer measurements practical in vhf and uhf coax systems. Flat response, high power capacity, low insertion loss. Four models, covering 216 to 4,000 MC collectively. \$125.00.

Instrument	Primary Uses	Frequency Range	Characteristics	Price
-hp- 360A-D Low Pass Filters	Eliminates harmonic voltages from uhf systems	Cutoff frequencies A- 700 MC C-2,200 MC B-1,200 MC D-4,100 MC	50 db rejection at 1.25 cutoff freq.	\$ 40.00
-hp- 415B Standing Wave Indicator	SWR indicator or null indicator	315 to 2,000 cps. Normal freq. 1,000 cps	0 to 70 db attn. Max. sensitivity 0.3 μ v	200.00
-hp- 416A Ratio Meter	Reflection coefficient measurements	1,000 cps ± 40 cps	Continuous swept frequency presentation; accuracy $\pm 3\%$	450.00△
-hp- 417A vhf Detector	vhf bridge detector (for -hp- 803A)	10 to 500 MC	Approx. 5 μ v sensitivity	250.00
-hp- 803A vhf Bridge	Measurement of vhf impedance, SWR	52 to 500 MC	2 to 2,000 ohms impedance -90° to $+90^\circ$ phase angle	495.00
-hp- 805A Coaxial Slotted Section	Measurement of SWR	500 to 4,000 MC	For Type N Connectors flexible cables	475.00
-hp- 805B Coaxial Slotted Section	Same as above	Same as above	For rigid $7/8"$ RG44/U line	475.00
-hp- 806B Coaxial Slotted Section	Same as above (mounts in 809B)	3,000 to 12,000 MC	For Type N Connectors flexible cables	200.00
-hp- 809B Universal Probe Carriage	G, J, H, X and P 810 Waveguide Sections Supports 806B section, also		Accepts 442B, 444A probes	160.00
-hp- 814A Universal Probe Carriage	Supports P, K and R 815A Waveguide Slotted Sections		Accepts Untuned Probe 446A	225.00

△ Rack mounted instruments \$15.00 less.

Instrument	Primary Uses	Frequency Range	Characteristics	Price
-hp- 430C Microwave Power Meter	Measurement of rf power	Depends on Bolometer Mount	0.02 to 10 mw $\pm 5\%$ accuracy	\$250.00
-hp- 475B Tunable Bolometer Mount	Measurement of rf power (with 430B/C)	1,000 to 4,000 MC	Matches 50 ohm line to 100 or 200 ohms	200.00
-hp- 476A Universal Bolometer Mount	Measurement of rf power (with 430B/C)	10 to 1,000 MC	No tuning required SWR less than 1.25	85.00
-hp- 477B Coaxial Thermistor Mount	Measurement of rf power (with 430C)	10 MC to 10 KMC	No tuning required SWR less than 1.5	75.00
-hp- 485 Waveguide Detector Mount	Measurement of rf power	2,600 to 18,000 MC	Full coverage of waveguide band	See Table page 8
-hp- 487B Waveguide Thermistor Mount	Measurement of rf power	3,950 to 26,500 MC	Full coverage, no tuning, 1.5 SWR except K487B, 2.5	See Table page 8
-hp- 764D Dual Directional Coupler	Reflectometer and rf power measurements	216 to 450 MC	Coupling attenuation* 20 db, directivity 30 db	125.00
-hp- 765D Dual Directional Coupler	Reflectometer and rf power measurements	450 to 945 MC	Coupling attenuation* 20 db, directivity 30 db	125.00
-hp- 766D Dual Directional Coupler	Reflectometer and rf power measurements	940 to 1,975 MC	Coupling attenuation* 20 db, directivity 26 db	125.00
-hp- 767D Dual Directional Coupler	Reflectometer and rf power measurements	1,900 to 4,000 MC	Coupling attenuation* 20 db, directivity 26 db	125.00

*Power handling capacity all 764/767 series couplers 50 watts CW, 10 Kw peak.

-hp- 477B Coaxial Thermistor Mount



For frequency range 10 MC to 10 KMC. SWR less than 1.5. Thermistor element is 200 ohm negative. \$75.00 (including thermistor).

More -hp- Microwave Equipment

-hp- Waveguide Test Equipment-2.6 to 40.0 KMC

Basic, low-cost elements offer utmost flexibility for assembly of exact instrumentation required. Each unit covers entire range of its waveguide size. Careful engineering, simple, sturdy mechanical design, highest quality manufacture insures accurate, multi-purpose operation.

Instrument	Coaxial Type N Conn.	"S" 3" x 1 1/2" 2.6 - 3.95 KMC	"G" 2" x 1" 3.95 - 5.85 KMC	"J" 1 1/2" x 3/4" 5.2 - 8.2 KMC	"H" 1 1/4" x 5/8" 7.05 - 10.0 KMC	"X" 1" x 1/2" 8.2 - 12.4 KMC	"P" .702" x .391" 12.4 - 18.0 KMC	"K" .500" x .250" 18.0 - 26.5 KMC	"R" .360" x .220" 26.5 - 40.0 KMC
Adapter, Waveguide to Coax		S281A \$50	G281A \$40	J281A \$35	H281A \$30	X281A \$25			
Cover to Choke Flange		S290A \$65	G290A \$50	J290A \$35	H290A \$25	X290A \$15	P290A \$20		
Attenuators, Fixed 3, 6, 10, 20 db		S370A \$75	G370A \$65	J370A \$65	H370A \$60	X370A \$55	P370A \$60		
Flap, 25 db max.		S375A \$120	G375A \$110	J375A \$100	H375A \$90	X375A \$85	P375A \$80	K375A \$60	R375A \$70
Calibrated, precision		S380A \$260	G382A \$500	J382A \$350	H382A \$350	X382A \$250	P382A \$275		
Detector Mounts	420A \$50 420B \$75 440A† \$85				H421A \$85	X421A \$75	P421A \$85		
		S485D° \$145	G485D \$140	J485D° \$135					
		S485A† \$125	G485B† \$95	J485B† \$90	H485B† \$85	X485B† \$75	P485C■ \$110		
Isolators						X365A \$225			
Thermistor Mounts (Fixed tuned) ■	477B \$75		G487B \$95	J487B \$90	H487B \$80	X487B \$75		K487B \$85	
Frequency Meters, Reaction				J530A/B**	H530A \$120	X530A \$120	P530A \$150		
Waveguide						X532A \$150			
Directional Coupler, Cross Guide: 20, 30 db		\$750 \$130	G750 \$120	J750 \$70	H750 \$60	X750 \$50			
Directional Couplers, Multi Hole: 3, 10, 20 db		\$752 \$375	G752 \$250	J752 \$140	H752 \$120	X752 \$75	P752 \$100	K752 \$100	R752 \$120
Slotted Sections, Waveguide		S810A* \$450	G810B§ \$110	J810B§ \$110	H810B§ \$110	X810B§ \$90	P810B§ \$110		
Slotted Sections, Waveguide							P815A \$200	K815A \$200	R815A \$200
Tuners, Slide Screw		S870A \$225	G870A \$185	J870A \$150	H870A \$130	X870A \$125	P870A \$130	K870A \$140	R870A \$140
E-H						X880A \$130	P880A \$135	K880A \$155	R880A \$170
Waveguide Phase Shifter				J885A \$400		X885A \$300	P885A \$350		
Terminations, Low Power		S910A \$45	G910A \$35	J910A \$30	H910A \$25	X910A \$20	P910A \$25	K910A \$30	R910A \$35
Terminations, High Power		S912A \$160				X912A \$50			
Moving Load		S914A \$100	G914A \$75	J914A \$70	H914A \$60	X914A \$50	P914A \$55	K914A \$65	R914A \$75
Standard Reflections						X916A \$100			
Adjustable Shorts		S920A \$90	G920A \$70	J920A \$60	H920A \$50	X920A \$40	P920A \$55	K920A \$75	R920A \$85
Waveguide Shorting Switch						X930 \$60			
Broad Band Probe	442B§ \$35	All frequencies							
Broad Band Probe, Untuned		444A \$35 2.6 to 12.4 KMC				446A \$145 12.4 to 40 KMC			
Waveguide Clamps, Stands									

†For use with barretter or crystal.
■ Includes Thermistor, installed.

‡For use with barretter only.
**J530A, 5.85 to 8.2 KMC, \$120; J530B, 5.20 to 7.05 KMC, \$150.

*Complete assembly including carriage.
§Mounts in 809B Carriage.
° Includes barretter; checked for square law characteristics.

-hp- Offers World's Most Complete Array of Microwave Equipment

-hp- 809B/814A Universal Probe Carriages



Models 809B and 814A are precision built mechanical assemblies operating, respectively, with -hp- 810B and 815A series slotted sections.

Combination of the 809B carriage and 810B slotted sections covers

2.6 to 18.0 KMC. Combination of 814A carriage and 815A series sections covers 12.4 to 40.0 KMC.

On either carriage, waveguides can be interchanged in seconds for real savings on engineering time. Only one probe is required for each carriage to cover full frequency range. Manufacture is of highest quality to assure positive mechanical positioning of interchangeable waveguides and precise installation of mating -hp- probes (see opposite page). -hp- 809B has a vernier scale reading to 0.1 mm and is equipped for dial gauge mounting. -hp- 814A has a cylindrical dial which may be read directly to 0.1 mm and interpolated at 0.01 mm.

-hp- 810B Slotted Sections. -hp- 810B, for mounting in 809B carriage, is a flanged, waveguide section with accurately machined slot. Slot is tapered at ends to minimize reflection. Available in 5 waveguide bands, 3.95 through 18.0 KMC.

-hp- S810A. Complete slotted section assembly including probe carriage. In 2.6 to 3.95 KMC (s-band) size only.

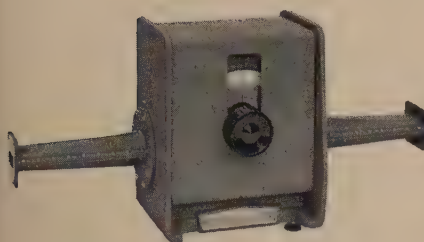
-hp- 815A Slotted Sections. For mounting in 814A carriage. Available P, K and R bands, 12.4 to 40.0 KMC. To insure positive positioning when mounting in carriage, these sections seat on two eccentric rods. Rods are factory-adjusted so longitudinal plane of guide is always parallel to probe travel.

Equipment below available for most waveguide frequencies



-hp- 752 Multi-Hole Couplers

Precision directional couplers available in 3 models with coupling factors of 3, 10 and 20 db. Coupling accuracy ± 0.4 db except K, R bands which are ± 0.7 db. Directivity better than 40 db full range, coupling variation not over ± 0.5 db full range. Primary guide SWR less than 1.05. S, G, J, H, X, P, K, R bands, 2.6 to 40.0 KMC. \$75.00 to \$375.00.



-hp- 382A Precision Attenuators

Precision broadband attenuation to 50 db. Completely independent of frequency; phase shift constant at all attenuations. Calibrated range 0 to 50 db, maximum error $\pm 2\%$ of db reading. G, J, H, X and P bands available covering 3.95 to 18.0 KMC. SWR less than 1.15 full range. \$250.00 to \$500.00.

-hp- 281A Waveguide-Coax Adapters



For convenient transition between waveguide and coax systems. Each unit covers a full waveguide range with SWR less than 1.25. Type N coax plug, AN waveguide flange. For S, G, J, X and P bands, 2.6 to

12.4 KMC. \$15.00 to \$65.00.

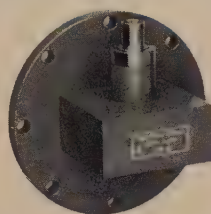
-hp- 444A/446A Untuned Probes



-hp- 444A is modified crystal (1N76 or 1N26) plus small antenna in convenient housing. Probe penetration easily variable; may be locked in position. No tuning needed; sensitivity superior to most elaborate single or double tuned probes. Range 2.4 to 18 KMC; fits $\frac{3}{4}$ " bore.

New -hp- 446A, for -hp- 814 Probe Carriage, similar but covers P, K and R bands, 12.4 to 40.0 KMC. -hp- 444A, \$35.00. -hp- 446A, \$145.00.

-hp-487B Thermistor Mounts



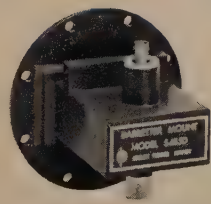
For fast, accurate waveguide power measurements. Each unit covers full range of its waveguide frequency. No tuning needed, SWR 1.5 max., except K487B, SWR 2.5 max. Max. power 10 mw. Rugged construction, high temperature coefficient thermistors virtually eliminate burnout. For G, J, H, X and K bands, 3.95 to 26.5 KMC. \$75.00 to \$95.00.



-hp- 870A Slide Screw Tuners

For flattening waveguide systems, matching, etc. Probe position and penetration adjusts to set up SWR cancelling existing SWR. Precision lead screw or micrometer varies probe insertion; vernier adjusts probe position. Corrects SWRs of 20 with accuracy of 1.02 SWR. For S, G, J, H, X, P, K, R bands, 2.6 to 40.0 KMC. \$125.00 to \$225.00.

-hp- 485 Detector Mounts



Three basic series offered; S485A for S band (no tuning, 1.35 SWR, 821 element); 485B, for G, J, H, X bands (tunable, 1.25 SWR full range, 1N23, 1N21 or 821 element); 485D for S, G, J bands (factory-installed 821 barretter). Also P485C, like 485B but for P band only, has installed 200 ohm 3 mw thermistor. \$75.00 to \$145.00.

-hp- X532A Frequency Meters

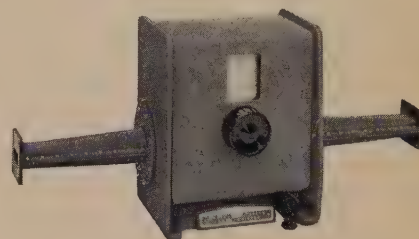


Direct reading, 8.2 to 12.4 KMC X band wavemeter, highest quality at low cost. Reads direct in KMC, accuracy 0.08%. No interpolation or charts. No sliding contacts; approx. 1.5 db dip in transmitted power at resonance. Scale length approx. 77" calibrated every 5 MC. Resettability 0.01%. \$150.00.



-hp- 420A/B Crystal Detectors

Employs a silicon crystal to detect rf signals in Type N coaxial lines. Covers frequencies 10 MC to 12.5 KMC, sensitivity approx. 0.01 v/0.1 mw, frequency response ± 3 db full range. Uses modified 1N26 crystal, max. SWR 3. \$50.00 each. Also available in matched pairs as -hp- 420B, \$150.00 pair.



-hp- 885A Phase Shifters

Provide accurate, controllable phase variation throughout frequency band. Ideal for microwave impedance, transmission measurements, antenna and system design. Direct reading, low power absorption, 360° electrical range. For J, X and P bands, 5.3 to 18.0 KMC. \$300.00 to \$400.00.

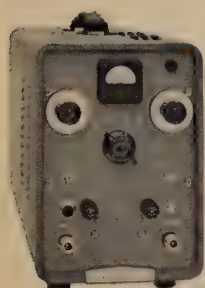


-hp- 914A Moving Loads

Waveguide section containing sliding, tapered low-reflection load. Plunger controls position of load; position is variable at least $\frac{1}{2}$ wavelength at lowest frequency of given band. Residual reflection phase is thus reversed to separate from other minor reflection in the system. For S, G, J, H, X, P, K, R bands, 2.6 to 40.0 KMC. \$50.00 to \$100.00.

Amplifiers for General Use and Fast Circuit Work

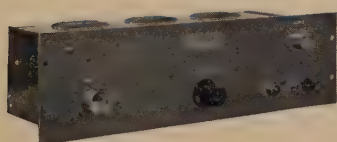
-hp- Travelling-Wave Tube Amplifiers



-hp- offers Traveling-Wave Tube Amplifiers for all frequencies 2 to 12.4 KMC. -hp- 490B, 492A and 494A are low level, high gain amplifiers with 30 and 25 db gain; they offer amplitude, pulse, phase or FM modulation. -hp- 491A is a high power traveling-wave tube amplifier

having a rated output of 1 watt, 2 to 4 KMC. All amplifiers have exclusive -hp- helical coupling system, and employ encapsulated traveling-wave tubes that can be readily replaced. -hp- 490B/491A, \$1,100.00. -hp- 492A/494A, \$1,500.00.

-hp- 460A/B Fast Pulse Amplifiers



-hp- 460A Wide Band Amplifiers, in cascade with -hp- 460B Fast Pulse Amplifiers, provide up to 90 db gain, 125 v open circuit. This permits direct connection to oscilloscope deflection plates. Rise time 0.0026 μ sec. Will amplify millimicrosecond pulses. Over 100 MC band width for 'scopes. -hp- 460A, \$185.00. -hp- 460B, \$225.00.

Instrument	Primary Uses	Frequency Range	Characteristics	Price
-hp- 450A Amplifier, Stabilized	General purpose lab amplifier	10 cps to 1,000,000 cps	20 and 40 db gain, frequency response $\pm 1/2$ db	\$ 140.00
-hp- 460A Amplifier, Wide Band	Wide band, pulse amplification	100 KC to 140 MC	20 db gain, rise time 0.0026 μ sec	185.00
-hp- 460B Amplifier, Fast Pulse	Pulse amplification high output	100 KC to 140 MC	15 db gain, 125 peak volts	225.00
-hp- 490B Traveling-Wave Tube Amplifier	Amplification throughout "S" band	2 to 4 KMC	30 db gain; Millimicrosec rise time; 10 mw output	1,100.00
-hp- 491A Traveling-Wave Tube Amplifier	High power "S" band amplification	2 to 4 KMC	30 db gain; millimicrosec rise time; 1 watt output	1,100.00
-hp- 492A Traveling-Wave Tube Amplifier	Amplification through most of "G" and "J" bands	4 to 8 KMC	30 db gain; millimicrosec rise time; 10 mw output	1,500.00
-hp- 494A Traveling-Wave Tube Amplifier	Amplification throughout "X" band	7 to 12.4 KMC	25 db gain; millimicrosec rise time; 5 mw output	1,500.00

-hp- Regulated and Klystron Power Supplies

-hp- 715A Power Supply



-hp- 715A is a versatile source of regulated beam and reflector voltage for operating most test bench klystron tubes. Beam voltage 250 to 400 v; reflector voltage 0 to 900 v; 6.3 v filament. Internal, 1,000 cps square wave modulation, and 60 cps sine wave modulation of reflector voltage. \$300.00.

-hp- 712B Power Supply

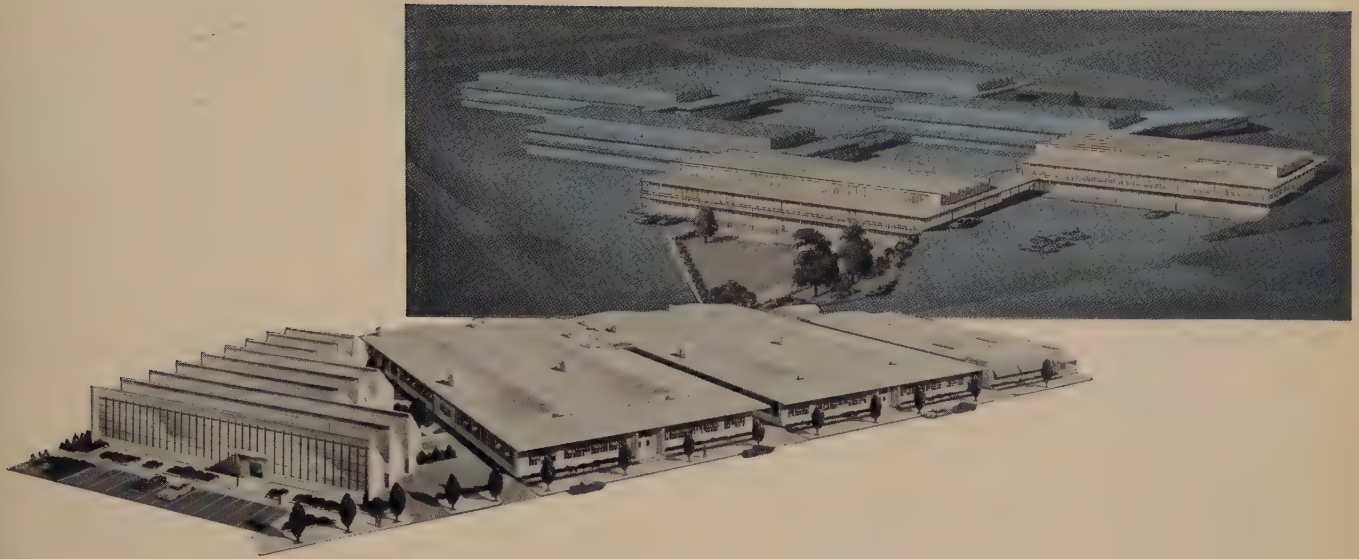


This -hp- instrument features high regulation of 50 mv no load to full load, 0.1 millisecond transient response, internal impedance 0.1 ohms in series with 25 μ H; full-load maximum

hum less than 500 μ v, sealed transformers, chokes and condensers. 0 to 500 v, 200 ma supply and fixed -300 v tap providing a 50 ma, 300 to 800 v variable supply for klystron operation. \$365.00 Δ .

Instrument	Primary Use	Characteristics	Price
-hp- 710B Power Supply	General Purpose regulated dc supply for lab and field use	100 to 360 volts @ 75 ma	\$100.00
-hp- 711A Laboratory Power Supply	Same as 710B	0 to 500 volts @ 100 ma	225.00
-hp- 712B Power Supply	Same as 710B	0 to 500 volts @ 200 ma	365.00 Δ
-hp- 715A Klystron Power Supply	Regulated beam, reflector source for low power klystrons	250 to 400 volts @ 50 ma	300.00
-hp- 717A Klystron Power Supply	Powering Type 5721 klystrons	800 to 1,000 volts @ 25 ma	375.00

Δ Rack mounted instrument available for \$15.00 less.



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makes over 300 instruments; you can choose from the world's largest and most complete line just the equipment you need. In making this choice, you are assured of *-hp-* quality; today the standard of the world in electronic test instruments.

To give you personal help with measuring problems, you have available over 150 electronics specialists in every major U. S. metropolitan area, and around the world. These men, trained and annually re-trained by *-hp-*, are experts in applying as well as selling and servicing *-hp-* instruments. Call them when you can use personal, competent help, in your plant, today.

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-hp- Low Frequency, High Frequency Oscilloscopes

◀ -hp- 150A High Frequency Oscilloscope

Dc to 10 MC. Plug-in pre-amplifiers.

Sweeps 0.02 $\mu\text{sec}/\text{cm}$ to 15 sec/cm



-hp- 130A Low Frequency Oscilloscope

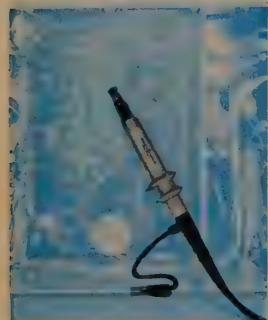
High sensitivity, dc to 300 KC.

Sweeps 1 $\mu\text{sec}/\text{cm}$ to 12.5 sec/cm



Never before in -hp- history have two instruments gained such immediate and wide-spread usage as the all-new -hp- oscilloscopes.

Based on a completely fresh philosophy of oscilloscope design, new -hp- 130A and 150A establish new standards of oscilloscope usefulness, convenience, dependability. Important feature is universal automatic triggering arrangement where one preset adjustment provides optimum triggering for most conditions. Other appreciated features include direct-reading calibrated sweeps, brilliant, high resolution trace without halo or bloom, etched circuits with unitized construction, concentric, color-coded controls, highest quality components and ultra conservative design, twistoff bezel, easy CRT or filter interchange, tilt bail.



-hp- 150A, dc to 10 MC, has plug-in vertical amplifiers offering either high gain or dual trace. The instrument sweeps 0.02 $\mu\text{sec}/\text{cm}$ to 15 sec/cm; there are 24 direct reading calibrated sweep ranges. May be triggered internally, by line voltage, or externally. Horizontal amplifier's magnification feature expands horizontal sweep 5, 10, 50 or 100 times. Vertical amplifier has rise time of less than 0.035 μsec ; signal delay permits leading edge of triggering signal to be viewed. For maximum flexibility; 18 calibrating voltages in 2, 5, 10 sequence, 0.2 mv to 100 v peak-to-peak, are available at the front panel.

-hp- 130A, dc to 300 KC, has similar vertical and hori-

zontal amplifiers with sensitivity 1 mv/cm to 50 v/cm. Instrument sweeps 1 $\mu\text{sec}/\text{cm}$ to 12.5 sec/cm, may be triggered internally by line voltage, or by a 0.5 volt or larger external source. 21 sweep times may be directly set; no interpolation required. Includes input attenuator with calibrated ranges in 1, 2, 5, 10 sequence; continuous adjustment vernier between ranges. Attenuator, plus instrument's high stability, permits use of 130A as millivoltmeter or voltmeter accurate to within 5%.

-hp- Model 130AR is similar to the 130A but is designed specifically for rack mounting. This instrument has a x5 magnifier for all internal sweeps increasing the fastest sweep time to 0.2 $\mu\text{sec}/\text{cm}$.

Instrument	Primary Uses	Characteristics	Price
-hp- 130A	General laboratory and production testing	Dc to 300 KC—High sensitivity	\$ 650.00
-hp- 150A	General laboratory high frequency and TV work	Dc to 10 MC—Plug-in vertical amplifiers	1100.00
-hp- 151A	High sensitivity—Plug-in for 150A	Dc to 10 MC—High sensitivity	200.00
-hp- 152A	Dual Trace—Plug-in for 150A	Dc to 10 MC—Presents two phenomena for simultaneous viewing	250.00



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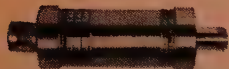
Manufacturers of coaxial attenuators to MIL specs. All units undergo thorough testing before leaving the factory.



Model 50



Model 210



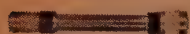
Model 10



Model 502



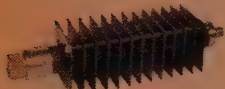
Model 503



Model 310



Model 540



Model 528



Model 519



Model 525



Model 64

Model 535



Model DS-109

Mod. 50 Typical Spec: Att. — 10 db $\pm$.05 db at DC, $\pm$ 0.2 db to 1 KMC; VSWR $<$ 1.15 to 1 KMC; Max. power input — 1 watt ave., 1 kw peak (pulse width $<$ 5 μ sec.); Calibration at DC, 400 mcs and 1000 mcs; Calibration Accuracy: DC — $\pm$.01 db, 400 and 1000 mcs — 0.1 db; Z_0 = 50 ohms; Connectors—Type N. Other models from 1 to 50 db.

Mod. 210 Typical Spec: Att. — 3 db $\pm$ 0.1 db at 4 KMC, — 0.3 db at 1 KMC and + 0.2 db at 10 KMC; VSWR $<$ 1.3 to 10 KMC; Freq. range — 0.6 to 10 KMC; Max. power input — 5 watts ave., 10 kw peak (pulse width $<$ 5 μ sec.); Calibration at 1, 4 and 10 KMC; Calibration Accuracy $\pm$ 0.1 db; Z_0 = 50 ohms; Connectors—Type N. Other models from 1 to 20 db.

Mod. 10 Typical Spec: Att. — 3 db $\pm$ 0.2 db from DC to 1000 mcs; VSWR $<$ 1.15 to 1000 mcs; Max. power input — 10 watts ave.; Power Sensitivity — .01 db/10 watts; Calibration at DC, 400 mcs, 750 mcs and 1000 mcs; Calibration accuracy: DC — $\pm$.02 db, R.F. — $\pm$.05 db; Z_0 = 50 ohms; Connectors—Type N. Other 10 watt attenuators from 1 db to 10 db.

Mod 310: —50 ohm, S-band pads, 5-20 db.

Mod. 502-503: —50 ohm, 1-10 KMC, 3-30 db.

Mod. 519: —46.5 ohm, $\frac{7}{8}$ " coaxial, 1-4 KMC, 3-10 db, 10 watts ave, 20 kw peak.

Mod. 525: —46.5 ohm, $\frac{7}{8}$ " coaxial, DC-1 KMC, 3-20 db.

Model 528: A 30 watt, 34.9 db precision attenuator, DC-600 mcs.

Mod. 530: Similar to Mod. 210 with additional shock resistance.

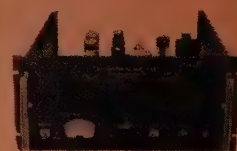
Mod. 540: Similar to Mod. 210 with BNC connectors.

Mod. 64: A step attenuator for use from DC to 1 KMC. Attenuation variable from 0-64 db in 0.1 db steps; Z_0 = 50 ohms; VSWR $<$ 1.15; Freq. sensitivity of insertion loss DC to 1 KMC: 1-10 db — 0.1 db, 20-50 db — 0.1/10 db.

Mod. 535 Coax. Terminations: 50 ohm terminations available with all standard connectors, e.g., with type N connectors — VSWR $<$ 1.05 to 4 KMC.

We also manufacture a line of double-stub tuners covering the range from 200 mcs to 10 KMC.

BA-1A AMPLIFIER: A low noise, high gain bolometer preamplifier selective to 1000 cps. Linear to 0.2 db over 60 db range. Particularly useful in r-f power ratio measurements with the CF-1 and IN-1.



CF-1 ATTENUATOR: An audio attenuator used in measuring r-f attenuation to $\pm$.02 db using substitution methods. Calibrated to read r-f attenuation directly when used with a square law detector. A companion instrument to the BA-1A and IN-1.



IN-1 INDICATOR: Allows substitution measurements down to levels where other indicators are badly bothered by noise. An ideal companion instrument to the BA-1A and CF-1.



MO-1A SQUARE WAVE MODULATOR: A very stable source of 1000 cps square waves for klystron modulation; particularly where narrow band circuitry is used to reduce noise in low level r-f measurements.



ND-1 DIFFERENTIAL NULL DETECTOR: An extremely sensitive, accurate and convenient detector for use in substitution type measurements where it is required to return a signal to a precise level.



MS-1, 2 & 3 R.F. SOURCES: Three R-F sources covering the range from 50 to 2000 mcs. All include 1000 cps square wave modulators and automatic regulator circuits to maintain constant output. A well regulated output of 200 mw peak is available to 920 mcs and 100 mw peak to 2000 mcs. The outstanding feature of these units is the constancy of output under variations in loading, power line variation, etc.



BA-5 ATTENUATION CALIBRATOR: Contains a bolometer preamplifier, audio substitution attenuator and indicator in one unit. Useful where a large number of attenuation measurements are to be made.



Weinschel Engineering

10503 Metropolitan Avenue
Kensington, Maryland



Lockwood 4-0122

ANTENNA PROBLEMS?

Ask Kennedy!



- A** 60' Radio Telescope
Harvard University
- B** 60' Trans-horizon Antennas
Northern Europe
- C** 120' Radar Antenna
Maine
- D** 28' Trans-horizon Antennas
Cape Cod
- E** 28' Trans-horizon Antenna
Texas Tower



The solution to antenna problems begins when someone says: "Let's ask Kennedy!"

A few of the many reasons why are shown on this page. These Kennedy antennas are setting new standards for all-weather reliability and versatility wherever they serve throughout the free world.

Kennedy antennas come in many shapes, many sizes (the world's largest scatter antenna is being built here). But whatever the type, and whatever the conditions under which it must serve, Kennedy can offer a design that fully measures up to specifications. And there are additional advantages in Kennedy's advanced construction techniques — like the extra ease in shipping and handling made possible by sectionalized aluminum construction, for example.

Kennedy engineers are available to supervise installations anywhere in the world. It's a part of the complete, integrated service that is still another reason why more and more people in communications are "asking Kennedy" about antenna problems.

ANTENNA EQUIPMENT

D. S. KENNEDY & CO.

COHASSET, MASS. — TEL: CO4-1200



Down-To-Earth **SOLUTIONS** to
Out-Of-This-World **PROBLEMS**

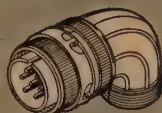
Tracking Antennas
Radio Telescopes
Radar Antennas
Tropospheric Scatter
Ionospheric Scatter

connect with **CANNON PLUGS**

for better electrical and electronic equipment

USE
for
**AIRCRAFT
and ELECTRONIC
INSTRUMENTS**

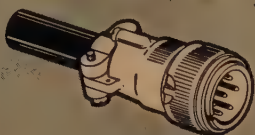
TYPICAL DESIGNS



AN, AN-A, AN-B, AN-C... Conforming to Specification MIL-C-5015C. 15 insert diameters and 260 contact layouts. 6 shell styles, AN3100 to AN3108 with all accessories. Also (AN) F, O(*) AF.

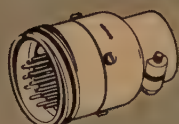


for **VIBRATION
RESISTANCE
and MOISTURE-
PROOF** applications



AN-E SERIES ... environment resisting. Replaces AN-M. Meets Specification MIL-C-5015C. Resilient inserts. Integral cable clamp. New grounding lugs. Interfacial sealing, improved grommet and new grommet follower.

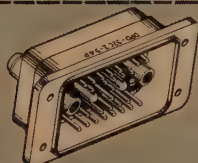
for **GENERAL
CIRCUITRY** and
QUICK DISCONNECT
in more rugged
applications



K, RK SERIES ... **SPECIAL ACME THREAD.** The All-Purpose Series. Conduit and cable clamp entry types. 1 to 82 contacts in 213 different contact layouts. 10-, 15-, 30-, 40-, 60-, 80-, 115-, and 200-amp. silver-plated contacts. High quality phenolic, melamine, and formica insulators. Cadmium-plated aluminum alloy shells.



for
UNIT-PLUG-IN
applications



DP, DPB, DPD, DPD2, DPD2R, DPJ, AND DPS SERIES ... Rack/panel/chassis. With and without shells; coaxial and high voltage contacts. Permit quick disconnect, interchange, replacement, testing and inspection of assemblies and sub-assemblies.

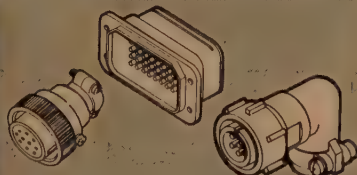
for **AUDIO
and LOW LEVEL
circuits**



P, XLR, XL, XK, O, UA, BRS SERIES ... many shell styles and insert layouts. Straight and angle 90° plugs. Latch-lock types. Wall-mounting, panel, lock-nut mounting, and adapter receptacles, single- and two-gang. 10- to 30-amp. contacts, coaxials. UA Series features 3 gold-plated contacts.



for **RADIO and
SUB-MINIATURE**
applications



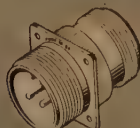
D, MC, DPA, DPX, AND K MINIATURES ... miniatures and sub-miniatures designed for amplifiers, miniature indicators, computer circuits, telemetering equipment, small pre-amps, and general instrumentation where space is limited and current requirements are generally not over 5 amperes. Variety of shell styles, junction shell, and insert arrangements. 3 to 50 contacts, plus coaxials.

for **HERMETICALLY
SEALED**
applications



GS (AN TYPE), KH, RKH, DAH, BFH, TBFH, DBH, KH30 ... with steel shells and contacts to withstand high pressures from within or without. Insulation is a glass material, fused under high temperature to shell and contacts, thus forming a hermetic seal.

for **HIGH
TEMPERATURE**
and firewall
applications



AN-K, AN-FW, AND CANNON K-FW STEEL SHELL CONNECTORS ... Open flame protection offered in the greatest variety of this type of connector. Wall- or box-mounting receptacles. Straight or angle 90° plugs. Crimp-type contacts. Inserts of glass-filled materials.

Send for AR Condensed Catalog containing illustrations and technical information on all principal series of connectors in the extensive Cannon Line.



CANNON ELECTRIC COMPANY, 3208 Humboldt St., Los Angeles 31, California. Factories in Los Angeles, Salem, Mass., Toronto, Can., London, Eng., Melbourne, Austl. Manufacturing licensees Paris, Tokyo. Representatives and distributors in all principal cities.

please refer to Dept. 149

CANNON ELECTRIC

Since 1915

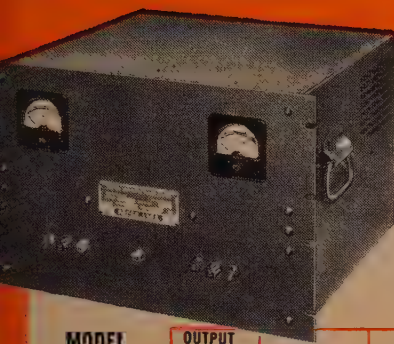


Performance
Reliability
and Quality

Kepeco

FOR VOLTAGE REGULATED POWER SUPPLIES

KR SERIES

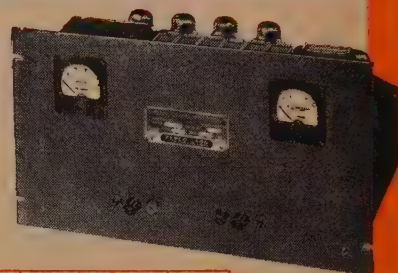


1.5 Amp.

**KR
SERIES**

MODEL
KR-16MC

OUTPUT VOLTS DC	6.3V AC	Model	Rack Mount			Price
			W	H	D	
0-150	Each supply	KR16	19"	12 1/4"	17"	\$625
100-200	has two	KR17	19"	12 1/4"	17"	\$625
195-325	15 Amp.	KR18	19"	12 1/4"	17"	\$695
295-450	outputs	KR19	19"	12 1/4"	17"	\$695



600 ma.

**KR
SERIES**

MODEL KR-8M

OUTPUT VOLTS DC	6.3V AC	Model	Rack Mount			Price
			W	H	D	
0-150	Each supply	KR 8	19"	10 1/2"	13"	\$330
100-200	has two	KR 5	19"	10 1/2"	13"	\$240
195-325	10 Amp.	KR 6	19"	10 1/2"	13"	\$240
295-450	outputs	KR 7	19"	10 1/2"	13"	\$250



300 ma.

**KR
SERIES**

MODEL KR-4

OUTPUT VOLTS DC	6.3V AC	Model	Rack Mount			Price
			W	H	D	
0-150	Each supply	KR 12	19"	7"	11"	\$270
100-200	has two	KR 3	19"	7"	11"	\$180
195-325	5 Amp.	KR 4	19"	7"	11"	\$180
295-450	outputs	KR 10	19"	7"	11"	\$190



125 ma.

**KR
SERIES**

MODEL KR-1C

OUTPUT VOLTS DC	6.3V AC	Model	Rack Mount			Price
			W	H	D	
0-150	Each supply	KR 11	19"	7"	11"	\$180
100-200	has one	KR 1	19"	7"	7 1/2"	\$ 90
195-325	3 Amp.	KR 2	19"	7"	7 1/2"	\$ 90
295-450	output	KR 9	19"	7"	7 1/2"	\$ 97

To Include 3" Current and Voltage Meters, Add M to Model number (e.g. KR 16-M) and Add \$30.00 to the Price.

To Include Dust Cover and Handles for Table Mounting, Add C to Model number (e.g. KR16-C) and Add \$10.00 to the Price.

To Include Meters, Dust Cover and Handles, Add MC to Model number (e.g. KR-16 MC) and Add \$40.00 to the Price.

PRICES F.O.B. Flushing,

with **NEW-IMPROVED FEATURES**

★ **FAST RECOVERY TIME** ★ **GOOD STABILITY** ★ **LOW OUTPUT IMPEDANCE**

Kepeco **KR** Voltage Regulated Power Supplies are conservatively rated and are designed for continuous duty at 50°C ambient.

REGULATION Less than 0.2 volts for line fluctuation from 105-125 volts and less than 0.2 volts for load variation from 0 to maximum current.

RIPPLE Less than 3 mv. rms.

STABILITY The output voltage variation is less than the regulation specification for a period of 8 hours.

RECOVERY TIME Less than 50 microseconds. The excursion in the output voltage during the recovery period is less than the regulation specification.

OUTPUT IMPEDANCE Less than 0.1 ohms from 20 cycles to 100KC. Less than 0.5 ohms from DC to 20 cycles. Many units have very much lower output impedance.

featuring

Fast recovery time, suitable for square wave pulsed loading.

Voltage range continuously variable without switching.

Either positive or negative may be grounded.

Advanced vacuum tube regulator circuitry.

Power requirements 105-125 volts, 50-65 cycles.

Locking type voltage control AC, DC switches, fuses, and pilot lights.

Terminations on rear of unit.

Oil filled condensers.

Color Grey Hammertone.

Guarantee one year.

Models available
0 cycle operation
special order.

FOR WIDE RANGE UNITS SEE LAST PAGE

SEMI-CONDUCTOR REGULATED POWER SUPPLIES

- Transistorized (Tubeless) • Fast Recovery Time • Good Stability • Low Output Impedance
- Suitable for Square Wave Pulsed Loading • Voltage range continuously variable without switching

- Either positive or negative may be grounded

- Power requirements
105-125 volts
50-400 cycle

- Terminations on front and rear of unit

Model SC-32-2

- Controls on front panel
- Color grey hammertone

- Semiconductor Diode Reference

- High efficiency

- Low heat dissipation

- Compact, light weight

- Short circuit protection

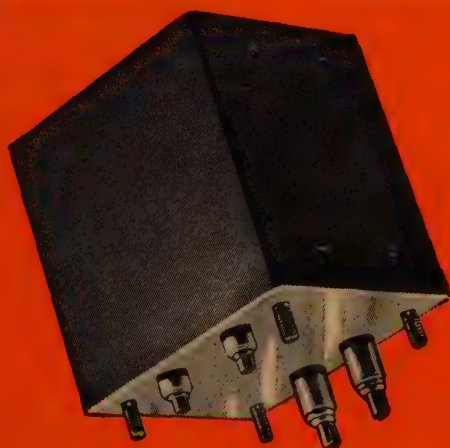


DC POWER SUPPLY SPECIFICATIONS

OUTPUT VOLTS	OUTPUT CURRENT	REGULATION LOAD 0-MAX.	LINE 105-125	RIPPLE (RMS)	RACK MOUNT W H D			MODEL
0-32	0-1 Amp.	10 mv.	10 mv.	1 mv.	19"	3½"	11"	SC-32-1
0-32	0-2.5 Amp.	10 mv.	10 mv.	1 mv.	19"	3½"	11"	SC-32-2
2-32	0-5 Amp.	½%	½%	10 mv.	19"	5¼"	13"	SC-32-5
2-32	0-10 Amp.	½%	½%	10 mv.	19"	8¾"	13"	SC-32-10
2-32	0-15 Amp.	½%	½%	10 mv.	19"	10½"	13"	SC-32-15
15-150	0-1 Amp.	½%	½%	10 mv.	19"	5¼"	13"	SC-150-1
150-300	0-1 Amp.	½%	½%	10 mv.	19"	8¾"	13"	SC-300-1

Positive
Performance
Reliability
and Quality

KEPCO



SEMI-CONDUCTOR DC to DC CONVERTERS

ARE USED IN CONVERTING LOW VOLTAGE DC TO HIGH VOLTAGE DC FOR OPERATING MOBILE AND AIRCRAFT ELECTRONIC EQUIPMENT.

Features:

- No moving parts
- High efficiency
- Long trouble-free operating life
- Overload protection
- Compact, light weight

OTHER UNREGULATED AND REGULATED
UNITS BUILT TO ORDER

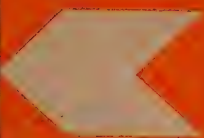
Specifications subject to
change without notice

DC OUTPUT VOLTS CURRENT		DC INPUT VOLTS	RIPPLE	S I Z E W D H			MODEL
325	100 ma.	6	1%	3¾"	3¾"	3¾"	SC325-100-6
325	100 ma.	12	1%	3¾"	3¾"	3¾"	SC325-100-12
325	100 ma.	28	1%	3¾"	3¾"	3¾"	SC325-100-28
325	200 ma.	6	1%	3¾"	3¾"	3¾"	SC325-200-6
325	200 ma.	12	1%	3¾"	3¾"	3¾"	SC325-200-12
325	200 ma.	28	1%	3¾"	3¾"	3¾"	SC325-200-28



KEPCO LABORATORIES, INC.

first in
Performance
Reliability
and Quality



kepco

introduces
the first in
a series of
**NEW
MAGNETIC
TUBELESS
VOLTAGE
REGULATED
POWER SUPPLIES**



**MODEL
KM 236-15**

**2-36 VOLTS
15 AMPS.**

turing

Output voltage within 0.5% during recovery time for line transients 105-125 volts.

Short circuit will not damage supply.

Full current may be drawn at any voltage from 2-36 volts.

OUTPUT VOLTAGE DC: 2-36 volts continuously variable.

OUTPUT CURRENT DC: 0-15 amperes continuous duty.

REGULATION: In the range 2-36 volts the output voltage variation is less than 0.5% for line fluctuation from 105-125 volts, and less than 0.5% or 25 millivolts, whichever is greater, for load variations from minimum to maximum current.

RIPPLE VOLTAGE: Less than 0.5% or 25 millivolts RMS, whichever is greater.

PROTECTION: Input fuses on front panel.

LOAD PROTECTION: An automatic current limiting device prevents direct shorting of the output terminals without damage to the supply.

POWER REQUIREMENTS: 105-125 volts, 57-63 cycles.

OUTPUT TERMINATIONS: DC terminals are clearly marked on the front panel. Either positive or negative terminal of the supply may be grounded. DC terminals are isolated from the chassis. A binding post is available for connecting to the chassis. All terminals are also brought out at the rear of the chassis. Two terminals are mounted at the rear of the chassis to provide for picking up the error signal directly at the load. This connection compensates for the voltage drop in the wires connecting the power supply to the load.

METERS: Ammeter: 0-15 amperes, 4" rectangular.
Voltmeter: 0-50 volts, 4" rectangular.

CONTROLS: Power on-off switch, DC on-off switch, remote error signal on-off switch, coarse and fine voltage controls.

PHYSICAL SPECIFICATIONS: Rack panel construction. Panel height 12 1/4", width 19", depth 17". Color Kepco standard gray hammettone. This unit is designed for relay rack mounting or bench use. Carry handles are provided.

OPERATIONAL CHARACTERISTICS: This regulated unit consists of a ferro-resonant line regulator followed by a magnetic amplifier regulator. The ferro-resonant line regulator furnishes well regulated transient free AC power. The high gain magnetic amplifier is used to regulate the DC output voltage to compensate for voltage changes in the power unit for varying load currents. The response time for pulse loads is less than 0.2 seconds.

first in
Performance
Reliability
and Quality

WRITE FOR SPECIFICATIONS ON 30 and 50 AMP. MAGNETIC SUPPLIES

1-38 SANFORD AVENUE • FLUSHING 55, N.Y. • INDEPENDENCE 1-7000

FIRST IN PERFORMANCE • RELIABILITY • QUALITY

First in
Performance
Reliability
and Quality

Kepeco

VOLTAGE REGULATED WIDE RANGE POWER SUPPLIES

DC POWER SUPPLY SPECIFICATIONS

OUTPUT VOLTS	OUTPUT CURRENT	REGULATION LOAD 0-MAX.	LINE 105-125	RIPPLE (RMS)	6.3V $\pm$ AC CT	RACK MOUNT			MODEL
						W	H	D	
0-2500	0-50 ma.	0.1 V	0.2 V	5 mv.		19"	12 1/4"	17"	2500
0-1500	0-200 ma.	0.1 V	0.2 V	3 mv.		19"	21"	13"	1520B $\diamond$
0-1200	0-20 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	10 1/2"	13"	1220B
0-1000	0-500 ma.	0.1 V	0.2 V	3 mv.		19"	26 1/4"	13"	1250B $\diamond$
0-1000	0-50 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	10 1/2"	13"	1020B
0-600	0-3 Amp.	0.1 V	0.2 V	3 mv.		19"	45 1/2"	17"	780B $\diamond$
0-600	0-2.25 Amp.	0.1 V	0.2 V	3 mv.		19"	31 1/2"	17"	770B $\diamond$
0-600	0-1.5 Amp.	0.1 V	0.2 V	3 mv.		19"	31 1/2"	17"	760B $\diamond$
0-600	0-750 ma.	0.1 V	0.2 V	3 mv.		19"	26 1/4"	13"	750B $\diamond$
0-600	0-500 ma.	0.1 V	0.2 V	3 mv.	20 Amp.	19"	10 1/2"	17"	605
0-150 Bias	0-5 ma.	*	10 mv.	1 mv.					
0-600	0-300 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	10 1/2"	13"	615B
0-150 Bias	0-5 ma.	*	10 mv.	1 mv.					
0-600	0-300 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	10 1/2"	13"	500RB
#1 0-600	0-200 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	12 1/4"	17"	800B
#2 0-600	0-200 ma.	0.1 V	0.2 V	3 mv.	10 Amp.				
Parallel #1 & #2	0-400 ma.	0.1 V	0.2 V	3 mv.					
Series #1 & #2	0-200 ma.	0.1 V	0.3 V	5 mv.					
0-1200	0-200 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	10 1/2"	13"	815B
0-150 Bias	0-5 ma.	*	10 mv.	1 mv.					
#1 200-500	0-200 ma.	0.2 V	0.2 V	3 mv.	10 Amp.	19"	12 1/4"	17"	510B
#2 200-500	0-200 ma.	0.2 V	0.2 V	3 mv.	10 Amp.				
Parallel #1 & #2	0-400 ma.	0.2 V	0.2 V	3 mv.					
Series #1 & #2	0-200 ma.	0.3 V	0.3 V	5 mv.					
400-1000	0-200 ma.	0.2 V	0.2 V	3 mv.	10 Amp.	19"	7"	7 1/2"	245B

OUTPUT VOLTS	OUTPUT CURRENT	REGULATION LOAD 0-MAX.	LINE 105-125	RIPPLE (RMS)	6.3V $\pm$ AC CT	RACK MOUNT			MODEL
						W	H	D	
#1 0-450	0-300 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	12 1/4"	17"	430B
#2 0-450	0-300 ma.	0.1 V	0.2 V	3 mv.	10 Amp.				
Parallel #1 & #2	0-600 ma.	0.1 V	0.2 V	3 mv.					
Series #1 & #2	0-300 ma.	0.1 V	0.3 V	5 mv.					
0-900	0-150 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	10 1/2"	17"	2400B
#1 0-400	0-150 ma.	0.1 V	0.2 V	3 mv.	10 Amp.				
#2 0-400	0-150 ma.	0.1 V	0.2 V	3 mv.	10 Amp.				
#3 0-150 Bias	0-5 ma.	*	10 mv.	1 mv.					
Parallel #1 & #2	0-300 ma.	0.1 V	0.2 V	3 mv.					
Series #1 & #2	0-150 ma.	0.1 V	0.3 V	5 mv.					
0-800	0-150 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	7"	11"	400B
0-400	0-150 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	7"	11"	315B
0-150 Bias	0-5 ma.	*	10 mv.	1 mv.					
0-400	0-150 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	7"	11"	141B
0-400	0-150 ma.	10 mv.	10 mv.	1 mv.		19"	10 1/2"	13"	2000B
0-350	0-3 Amp.	0.1 V	0.2 V	3 mv.		19"	26 1/4"	17"	730B
0-350	0-2.25 Amp.	0.1 V	0.2 V	3 mv.		19"	26 1/4"	17"	720B
0-350	0-1.5 Amp.	0.1 V	0.2 V	3 mv.		19"	12 1/4"	17"	710B
0-350	0-750 ma.	0.1 V	0.2 V	3 mv.		19"	10 1/2"	13"	700B
#1 0-300	0-75 ma.	Unregulated	Unregulated	30 mv.	5 Amp.	16"	8"	8"	103 $\diamond$
#2 0-300	0-75 ma.	Unregulated	Unregulated	30 mv.					
#3 -50 to +50	0-5 ma.	Unregulated	Unregulated	30 mv.					
Parallel #1 & #2	0-150 ma.	Unregulated	Unregulated	30 mv.					
0-300	0-75 ma.	0.02V	0.1 V	2 mv.	10 Amp.	19"	8 3/4"	17"	450B
#1 0-150	0-75 ma.	0.02V	0.1 V	2 mv.					
#2 0-150	0-75 ma.	0.02V	0.1 V	2 mv.					
Series #1 & #2	0-75 ma.	0.02V	0.2 V	4 mv.					
0-150	0-50 ma.	0.1 V	0.2 V	3 mv.		19"	7"	7 1/2"	150B
0-60	0-2 Amp.	5 mv.	5 mv.	1 mv.		19"	10 1/2"	17"	2600
0-60	0-5 Amp.	5 mv.	5 mv.	1 mv.		19"	26 1/4"	17"	2650 $\diamond$
0-30	0-500 ma.	10 mv.	10 mv.	3 mv.		19"	10 1/2"	13"	3100B
1-13	0-10 Amp.	1/2%	1/2%	10 mv.		19"	21"	13"	3200B

REGULATION: In the output voltage range the output voltage variation is less than the figure shown in the table for line fluctuations from 105 to 125 volts and load variations from 0 to maximum current.

RIPPLE: Less than the value shown in the table.

STABILITY: The output voltage variation is less than the regulation specification for a period of 8 hours.

RECOVERY TIME: Less than 50 microseconds. The excursion in the output voltage during the recovery period is less than the regulation specification for line fluctuations from 105 to 125 volts and load variations from 0 to maximum current. For Models 2000B, 2600, 2650 and 3100B the excursion in output voltage during the recovery time is less than 50 millivolts.

For Model 3200B the recovery time is less than 100 microseconds for line fluctuations and less than 0.1 seconds for load variations, with an output voltage excursion of less than 1 volt during the recovery period.

OUTPUT IMPEDANCE: Less than 0.1 ohms from 20 cycles to 100KC.

Less than 0.5 ohms from DC to 100KC.

Many units have very much lower output impedance.

Write for exact data specifying model.

***REGULATION FOR BIAS VOLTAGE:** In the range 0 to 150 volts the output voltage variation is less than 10 millivolts for line fluctuation from 105 to 125 volts. At 150 volts the output voltage variation is less than 1/2% for load variation from 0 to 5 ma. At settings below 150 volts the internal resistance of the supply will increase to a maximum of 25,000 ohms.

$\dagger$ All AC Voltages are unregulated.

$\diamond$ These units are supplied in cabinets. The chassis, when removed from their cabinets, will mount directly in a standard 19" wide relay rack. All units are designed for relay rack mounting or bench use.

All units contain voltage and current meters except Models 103, 315B, 450B, and 2500. The Model 150 contains a voltmeter only.

ALL
MODELS
FEATURE

- Fast recovery time. Suitable for square wave pulsed loading.
- Voltage Range continuously variable without switching.
- Either positive or negative may be grounded.

- Advanced vacuum tube regulator circuitry.
- Oil filled condensers.
- Wire harness and resistor board construction.
- Power requirements 105-125 volts, 60 cycles.

- Terminations on front and rear of unit.
- Voltage controls, AC, switches, fuses and pilot light on front panel.
- Color Grey Hammertone.
- Guarantee one year.

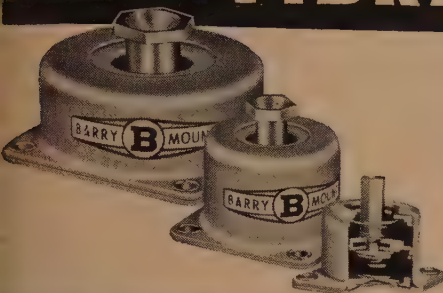
Most models available for 400 cycle operation on special order.



KEPCO LABORATORIES, INC.

131-38 SANFORD AVENUE • FLUSHING 55, N.Y. • INDEPENDENCE 1-7000

for control of **SHOCK** and **VIBRATION**



ALL-ANGL MOUNTS — for jets and missiles

The practical solution to mounting problems in jets and missiles; work at any angle, in maneuvers through every position; have high damping in all directions, low transmissibility at resonance. Built to handle the new jobs that are too tough for MIL-standard mounts. Available in all MIL sizes.

Type	MIL size	Max. load rating
B22	0	3 lbs.
B44	1	10 lbs.
B64	2	40 lbs.

ASK FOR BULLETIN 56-01.

ALL-METL MOUNTS

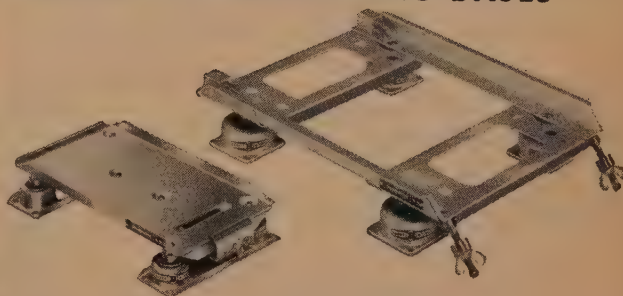


— for
MIL-spec service

Types M24, M44, and M64. Have non-packing wire-mesh damper; meet latest Government specifications for air-borne electronic equipment; ruggedized; lightweight; operate over wide temperature range; load ratings 0.1 to 40 pounds.

ASK FOR BULLETINS 534, 536, and 542.

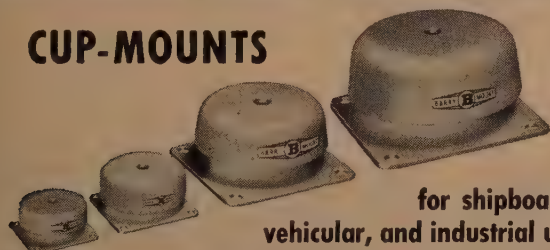
RACKS and MOUNTING BASES



Standard MIL-C-172B Units

Meet dimensional and material requirements of MIL-C-172B; in special sizes to fit customers' needs. With ALL-METL mounts, ask for Bulletins 534 & 536; with AIR-DAMPED mounts, ask for Bulletin 523-B.

CUP-MOUNTS



for shipboard,
vehicular, and industrial use

Barry cup-mounts, Series 1000, 2000, 4000, and 3000; protect sensitive equipment against shock and vibration in shipboard, vehicular, railway, and industrial service; load ratings up to 1800 pounds.

ASK FOR BULLETIN 56-02.

Special Designs

Barry prototype service can help you with all necessary design, development, testing, and production of special mounting bases specifically engineered to your equipment and service requirements. Typical Barrymount® specials using standard isolators, or new integral isolation systems, are shown here. To learn all about this service,

ASK FOR "DESIGN NOTES - EBG".

THE COMPLETE BARRY LINE also includes...

AIR-DAMPED MOUNTS
for air-borne equipment.
Ask for Bul. 523-B.

BALL MOUNTS
for very light loads.
Ask for Bul. 543.

TYPE 5200
for shock and vibration isolation.
Ask for Bul. 541.

TYPE 262
for motors and rotary equipment.
Ask for Bul. 537.

TYPE 670
for impact, rotary & reciprocating machines.
Ask for Bul. 538.



PRODUCT DIGEST
Condensed catalog of Barry mounts; gives sizes, load ranges, basic data, and lists technical articles.

Barry's New Western Division in Burbank, Calif., offers engineering prototypes & short-run production of "specials".

BARRY CONTROLS Incorporated — 711 PLEASANT ST., WATERTOWN 72, MASS.

Let the nearest Barry representative help you in every phase of your shock, vibration, and noise problems.

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E. V. Roberts & Associates
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(Redwood City)
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CANADA
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(Canada) Ltd.
Montreal—Toronto



AUDIO



POWER

Transformers and Inductors

miniatures

custom-built filters

saturable reactors

electronic assemblies

open...encased (including oil-filled)

encapsulated...cast

When you need transformers or other electronic assemblies for special purposes, Caledonia offers:

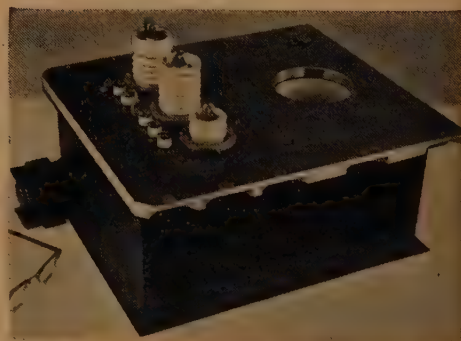
1. Engineers, experienced in communications circuitry and transformer design, who know how to *design* for special problems of weight, size, temperature, high voltage, etc.
2. A streamlined plant, equipped to *produce* your specialty in the quantity you want.
3. Strict standards of quality control, with complete facilities to *test* the product in our plant, including facilities for qualification tests in accordance with MIL-T-27A.



MINIATURES



PULSE



MULTIPLE ASSEMBLIES

When you have a transformer problem, call on

CALEDONIA

ELECTRONICS AND TRANSFORMER CORPORATION

Dept. ID, Caledonia, N. Y.

In Canada: Hackbusch Electronics, Ltd., 23 Primrose Ave., Toronto 4, Ont.

NOW...a full selection of PHILCO Transistors

For Reliable Performance ... Stability of Operation ... Long Life!



ACTUAL
SIZE

MINIATURE LOW LEVEL AUDIO TRANSISTORS (25 mw)	
2N207	general purpose micro-miniature low level transistor, typical beta of 100, 15 db maximum noise figure
2N207A	10 db maximum noise figure version of 2N207
2N207B	5 db maximum noise figure version of 2N207
T0031	50 volt version of 2N207
Special versions of the 2N207 to selected beta ranges are available	

HIGH FREQUENCY, HIGH GAIN (MICRO ALLOY) TRANSISTOR

T1166	combines high frequency response with high gain for general purpose high frequency applications and switching circuits, typical f_{max} 60 mc
--------------	---

HIGH FREQUENCY SILICON TRANSISTORS (150 mw)

T1025	general purpose, 10 mc silicon transistor
T1159	high speed silicon switch for speeds up to 5 mc characterized by extremely low switch resistance

HIGH FREQUENCY SURFACE BARRIER TRANSISTORS

SB100	general purpose, minimum $f_{max} = 30$ mc, beta over 10.5
2N344/SB101	general purpose, good beta control (11-33)
2N345/SB102	general purpose, higher beta (25-110)
2N346/SB103	general purpose, higher minimum f_{max} (60 mc)
2N128	general purpose, with military specifications, beta 19-66, minimum f_{max} 45 mc
2N129	general purpose, with military specifications, beta over 11.5
2N240	switching transistor, $f_{\alpha b} > 30$ mc
2N299	for tuned amplifiers, military specifications, 20 db minimum power gain at 10 mc, minimum f_{max} 90 mc
2N300	for video amplifiers, 50 mc minimum current gain bandwidth product, f_{max} over 85 mc
T1050	high frequency transistor for 50 mc oscillator mixers and 10-15 mc bandpass amplifiers, 22 db typical power gain at 10 mc
Other types with special parameter controls are available.	

MEDIUM POWER ALLOY JUNCTION AUDIO TRANSISTORS (100 mw)

2N223	39-120 beta driver transistor
T1000	45-85 beta version of 2N223
T1001	70-120 beta version of 2N223
2N224	high gain output transistor, 2N225 is a matched pair
2N226	medium gain version of 2N224, 2N227 is a matched pair
Versions of the 2N224 with various beta ranges and higher betas are available singly or in matched pairs.	

AUDIO POWER TRANSISTORS

T1040	40 volt, 7 watt power transistor, thermal drop 3°C/w maximum
T1041	40 volt, 10 watt power transistor, thermal drop 2.5°C/w maximum
T1167	60 volt, 12.5 watt power transistor
T1168	80 volt, 12.5 watt power transistor

U OF I
LIBRARY

Proven performance of Philco Hermetically Sealed Transistors has made them the basis for design in commercial and military applications where reliability is the major consideration. Philco transistors range from the world's smallest germanium transistors now in production to silicon transistors with excellent performance at temperatures from -60°C to $+150^{\circ}\text{C}$.

Philco produces a wide range of transistors designed for special applications in accordance with customer requirements. The Philco Micro-Alloy Transistor is in production. Specifications and design quantities are available. New and exciting transistor types, such as the Philco Micro-Alloy Graded Base Transistor, are now in development. In keeping with our policy, specifications will be made available as soon as these units reach pilot production and are available in design quantities.

Make Philco your prime source for complete transistor application information... write to Lansdale Tube Company, Dept. 1-2, Lansdale, Pennsylvania

Regional offices—Merchandise Mart Plaza
Chicago 54, Ill.—10589 Santa Monica
Blvd., Los Angeles 25, Calif.

PHILCO CORPORATION

LANSDALE TUBE COMPANY DIVISION

LANSDALE, PENNSYLVANIA

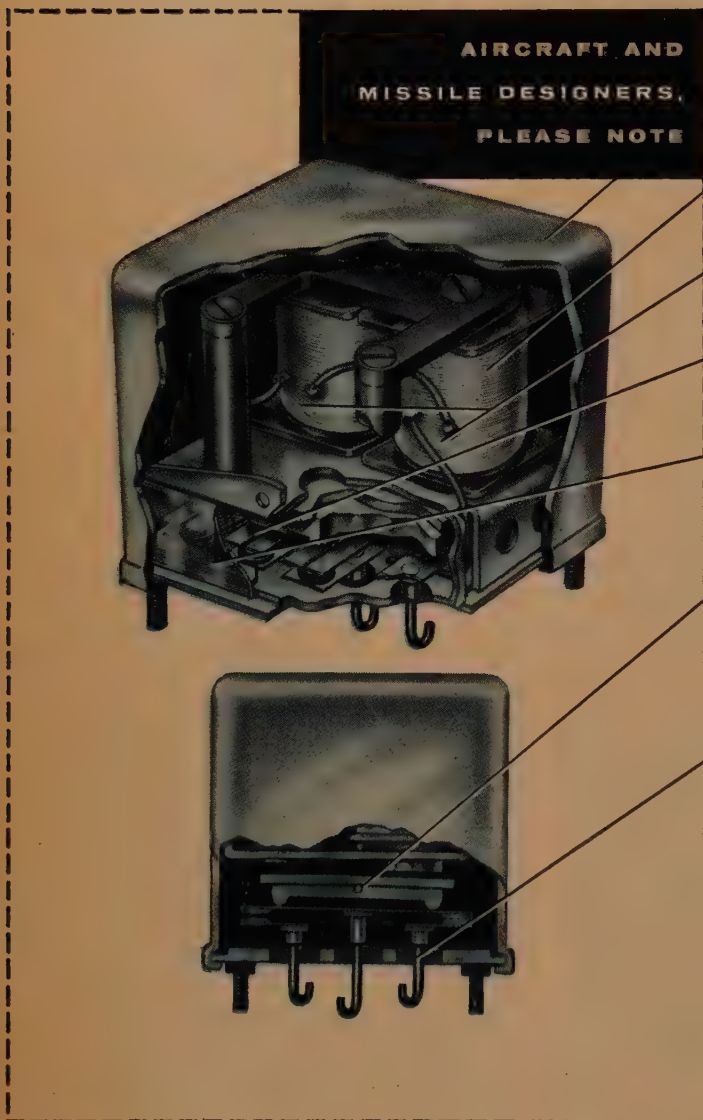
Get unprecedented performance —

See for yourself why the new

LEACH BALANCED-ARMATURE RELAYS

outperform all other types in resistance

to shock, acceleration and vibration



ONE-PIECE DIE CAST ALUMINUM HOUSING for maximum strength and vibration resistance with minimum weight.

MAGNET COIL wound with Teflon insulated magnet wire on one-piece Kel F bobbin assures reliability at elevated ambients.

DUAL COIL construction is the most efficient magnetic circuit for minimum height and maximum resistance to vibration and shock.

BIFURCATED CONTACTS assure high reliability in contact making circuits. Overtravel and high contact pressures produced by the pivoted armature result in immunity to shock and vibration.

ARC BARRIER of Kel F molded construction provides long arc path for use on 3 phase ac circuits, prevents phase-to-phase flashover.

BALANCED-ARMATURE DESIGN. In a *Balanced-Armature* construction, shock and vibration forces cannot cause the relay armature to move. This eliminates faulty operation of contacts due to vibration and shock forces.

HEADER AND CONTACT ASSEMBLY features simplified construction which eliminates internal wiring, lowers lead resistance, provides maximum resistance to vibration. Contacts and working parts are readily accessible throughout assembly, so that Leach is able to measure contact gap, contact pressure and overtravel, prior to sealing, on 100 per cent of production. Customers are assured of maximum performance from every production relay. Patent Pending.

MEETS ALL REQUIREMENTS OF THE MOST EXACTING OPERATING ENVIRONMENTS

The Leach Balanced-Armature Relays meet or exceed requirements of MIL-R-5757, MIL-R-6106, MIL-E-5272. Typical ratings include: vibration, 20 G's to 500 cps (higher ratings available); shock and acceleration, more than 50 G's; temperature, -50° to $+125^{\circ}\text{C}$; life, 50,000 continuous operations minimum at rated load; coils, any resistance to 10,000 ohms — also available for 115 vac, 400 cps operation.

Write today for your copy of the Leach Balanced-Armature Relay Catalog.

LEACH

CORPORATION

LEACH RELAY DIVISION

5915 AVALON BOULEVARD, LOS ANGELES 3, CALIFORNIA

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Case history
number 7

PISTON CAPACITORS AT WORK



**TRIMMERS PROVIDE QUICKER,
MORE ACCURATE ALIGNMENT,**

Shown $\frac{1}{2}$ size
Crystal Filter Model 13MA

GREATER STABILITY IN HYCON CRYSTAL FILTER

HYCON EASTERN, Inc., Cambridge, Mass., elected to use JFD Variable Trimmer Piston Capacitors because of the following advantages:

1. Convenient, smooth tuning adjustment.
2. Stability with temperature variation.
3. Stability under conditions of vibration and shock.
4. Ease of mounting on printed wiring boards.

These are some of the reasons why JFD VC9GW Trimmers are specified in Hycon Eastern Crystal Filters noted for their high stability, extremely sharp cut off and linear transfer characteristic. Used in single side band communication systems, Hycon Eastern Crystal Filters are available to select either the lower or upper side band. In VHF and UHF receivers Hycon filters provide all the required selectivity at the first intermediate frequency, thereby eliminating the complexity of multiple conversions.

JFD Trimmer VC9GW is one of many precision capacitors available to provide the stability, shock resistance, ultra linear tuning and wide operating temperature range necessary in your critical circuits.

Its sub-miniature size is also a welcome asset where space saving is a must in printed or chassis circuits.

Why don't you take advantage of JFD Variable Trimmer Piston Capacitors in solving your circuit tuning problems?

Write for literature



MODEL VC9GW*
(0.8 to 8.5 mmf-glass
dielectric-invar rotor)
patent pending



TELE METERING



COMMUNICATIONS

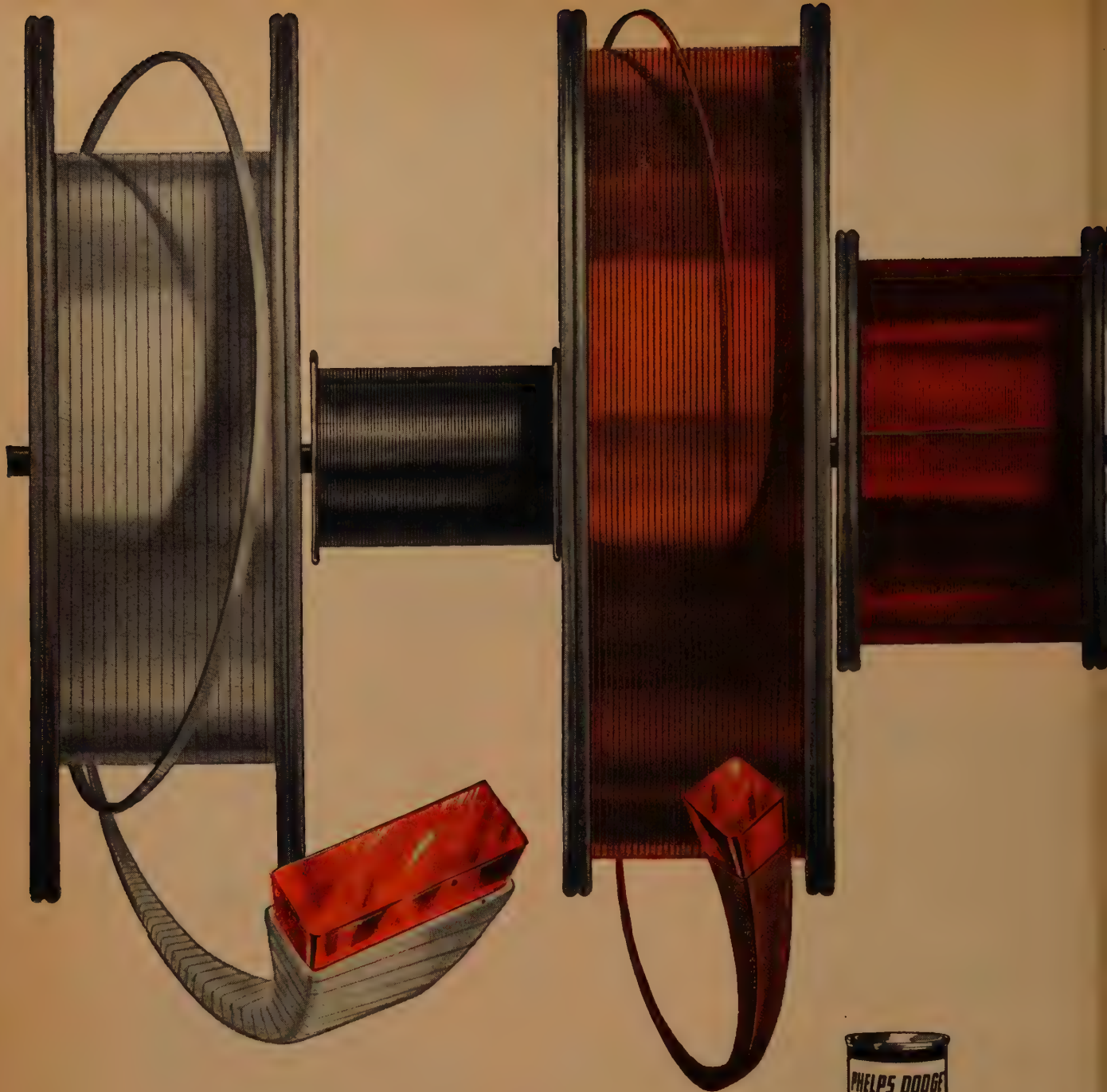


ELECTRONICS CORPORATION,

1462-62 STREET,

BROOKLYN, N.Y.

GO FORWARD WITH JFD ENGINEERING!



Wire packaged in Phelps Dodge special "Pakeze" containers if required.



First for Lasting Quality—from Mine to Market!



If it Calls for **MAGNET WIRE**—*Call on* **PHELPS, DODGE** *for*
**INDUSTRY'S MOST COMPLETE,
 MOST UP-TO-DATE LINE!**



Every type of insulation to meet design requirements.

Enamel • Formvar • Sodereze® • Bondeze® • Thermaleze®

Grip-eze® • Silicone Enamel • Daglas®

Daglas® Silicone • Paper • Cotton • Multiple Combinations



Available in all sizes and shapes—round, square, rectangular.

Over 400 different types!



Special emphasis on research and development—your assurance of the latest advances in magnet wire.



Vast background of application engineering experience to help solve your problems.



PHELPS DODGE COPPER PRODUCTS
CORPORATION

INCA MANUFACTURING DIVISION

FORT WAYNE, INDIANA



TRADE MARK



Sierra 121A Wave Analyzer

LINE BRIDGING TRANSFORMER

Converts voltmeter and wave analyzer inputs from single-ended to balanced operation. Model 130D bridges both 135 and 600 ohm balanced lines. Frequency range 3 KC to 500 KC. Write for details.

LINE FAULT ANALYZER



Sierra 124A Line Fault Analyzer

Operates on most open wire power, communications lines. Instantly pin-points shorts, opens, grounds. Direct reading, easy to use, range 1/2 to 200 miles. Sweep marker continuously adjustable from 5 to 100 miles; locates faults with accuracy of 1/4 mile. Request Bulletin 102.

(Sierra now offers Model 169 Line Coupling Network rated at 5 KV. Ideal for coupling Model 124A to "dead" power lines. Affords protection to personnel and equipment.)

REFLECTION COEFFICIENT METER

Compact, moderately-priced instrument giving great speed, convenience for measuring coaxial transmission line reflection coefficient, VSWR, or matching loads to line. High accuracy. Sensitivity permits operation with any standard CW signal generator. Provides continuous monitoring at any frequency over the range 32 MC to 1125 MC. Employs Sierra wideband directional couplers to sample incident and reflected voltage. Attenuator calibrated in reflection coefficient and VSWR. Request Bulletin 106.

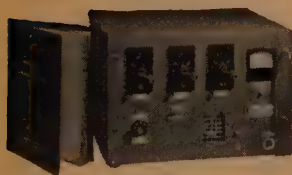
COAXIAL READOUT DEVICES

Insure sensitive readout for Sierra vhf-uhf Directional Couplers. Model 148 Crystal Detector, low VSWR, higher sensitivity to 1200 MC. Incorporates 50 ohm input impedance and filtered output. Type N input, BNC output connectors. Request Bulletin 113.

DOUBLE STUB TUNERS

New tuners match to a 50 ohm line any load having a 2:1 VSWR. Three models: 151 (155 MC to 300 MC); 152 (380 MC to 825 MC); 153 (900 MC to 1750 MC). Operates up to 1.5 KW peak power. Request Bulletin 110.

CALIBRATED RF LOAD



Sierra 141
Calibrated RF Load

Model 141 Variable Impedance Calibrated RF Load provides for direct power measurements from 25 to 250 watts at 2 MC to 30 MC. Load impedance resistance and reactance adjustable over wide range. High accuracy instrument with comprehensive individual impedance calibration charts for all frequencies, or typical charts for general purpose use. Accuracy: $\pm 5\%$ (impedance magnitude), $\pm 10\%$ (power). Request Bulletin 105.

WAVE ANALYZERS

Model	Frequency Range	Selectivity		Accuracy		Direct Reading in dbm	
		Down 3db	Down 45db	Frequency	Measuring	Balanced	Unbalanced
121A	15 KC-500 KC	± 100 cps	± 1000 cps	± 3 KC	± 2 db	Note D	600 ohms
158A	500 KC-10 MC	± 2000 cps	± 5000 cps	± 0.08 MC	± 2 db	—	600 ohms

CARRIER FREQUENCY VOLTMETERS

101C	20 KC-500 KC	± 550 cps	± 2900 cps	Note A	± 3 db	Note D	600 ohms
103B†	3 KC-40 KC	± 400 cps	± 3000 cps	± 0.5 KC	± 3 db	Note D	600 ohms
104A	5 KC-150 KC	± 300 cps	± 1500 cps	± 1 KC	± 3 db	Note D	600 ohms
108B	15 KC-500 KC	± 550 cps	± 2900 cps	± 3 KC Note B	± 2 db Note C	135 ohms Note D	600 ohms
114A	100 KC-800 KC	± 550 cps	± 2900 cps	Note A	± 3 db	Note D	600 ohms

All Models feature built-in calibration oscillators and circuits for level calibration have aural monitoring jacks, and (except 103B) are furnished with Sierra Model 149A Precision Spiral Scale Dials.

†Contains carrier re-insertion oscillator for monitoring suppressed carrier systems. Furnished with planetary drive dial. Note A. Ranges from ± 2 KC at low end of dial to ± 3 KC at upper end. Note B. ± 1 KC in the 48 KC to 256 KC region. Note C. ± 1 db for ± 30 db to -40 db attenuator steps on 135 ohm balanced measurements. Note D. All models may be converted for 135 and 600 ohm balanced line measurements by convenient plug-in bridging transformer, Model 130D.

IMPEDANCE METER

Sierra Model 166 Carrier Systems Impedance Meter is specifically designed for the measurement of impedances on circuits with high noise levels at any frequency over the range 30 KC to 300 KC. Either high or low power signal sources may be used. Measurements may be made on "hot" power lines through a series carrier coupling capacitor. Request Bulletin 112.

LOW PASS FILTERS



Model 184 Series Low Pass Filters have an insertion loss of not more than 0.4 db in pass band, sharp cut-off, 1.5 VSWR or less, and rejection greater than 60 db from 1.25 to 10 times cut-off frequency. Five models: for cut-off frequencies of 44, 76, 135, 230, 400 MC.

Power range 250 watts in pass band, 25 watts in rejection band. Request Bulletin 115.

WIDEBAND DIRECTIONAL COUPLERS

Coupling Factor: (in db ± 1 db)

Model	10 KC	3 MC	10 MC	30 MC	100 MC	300 MC	1000 MC	2000 MC
137, 137A				73	63	53	43	37
138, 138A				59	49	39	29	
145		52	42	32	22	12		
150				53	43	33	23	
139	50	50						

Directivity: 12 db ± 3 db greater than coupling factor at each frequency.

Impedance: Models 137 and 138 are 51.5 ohms. Models 137A, 138A, 145 and 150 are 50.0 ohms. Model 139 may be matched to most impedances.

Power: Usable to 1000 watts throughout frequency range.

PHASE CHANGER



Model 191 Phase Changer, ideal for life-testing tubes, are offered with ac or dc motor for 1 1/4" x 5/8" or 1" x 1/2" waveguides. VSWR preset at 1.5 but adjustable from 1.02 to 1.6. For powers to 200 Kw peak, average power rating 500 watts. Request Bulletin 117.

SIERRA ELECTRONIC CORPORATION

A Subsidiary of Philco Corporation

FIELD, LAB POWER MEASURING INSTRUMENTS

TERMINATION WATTMETERS



Sierra 195A-Z
Termination Wattmeter

Sierra 185A Series Average Reading Termination Wattmeters and Sierra 195A Series Peak-Reading Termination Wattmeters are broadly useful, dependable new instruments for terminating rf coaxial transmission systems and measuring rf powers. All models are ruggedly built, conservatively rated, and ideal as dummy loads for testing and adjusting transmitters and oscillators. Request Bulletins 120 (average reading) and 121 (peak-reading).

Model 185A Average-Reading and 195A Peak-Reading Wattmeters

Model Number	Connector	Frequency Range, MC	Power Range, Watts	Accuracy % of F. S.	Max. Power Dissipation	Max. VSWR
185A-15FN	N	20-1000	0-5/15	± 5%	15 watts	1.2
185A-100FN	N	20-1000	0-30/100	± 5%	100 watts	1.2
185A-500FN	N	20-1000	0-150/500	± 5%	500 watts	1.2
Model Number	Connector	Frequency Range, MC	Peak Power Range, KW	Max. Average Power	Pulse Width, μ sec	Repetition Rate, PPS
195A-Z	N	250-1000	0-1/3/10	15 watts	1.0 minimum	400 minimum
195A-X	LC	250-1000	0-10/30/100	100 watts	1.0 minimum	400 minimum
195A-Y	LC	250-1000	0-100/300/1000	500 watts	1.0 minimum	400 minimum
195A-W*	N	950-1250	0-1 and 0-3	15 watts	3.0 to 5.0	48 to 300
195A-V*	N	450-1250	0-3 and 0-10	100 watts	3.0 to 5.0	300 to 7200
195A-U*	HN	450-1250	0-5 and 0-15	500 watts	3.0 to 5.0	300 to 7200

NOTE: Female connectors are standard. *Available on special order only.

BI-DIRECTIONAL POWER MONITORS



Sierra 164
Power Monitor

Model 164 Series. Two plug-in elements cover 25 MC to 1,000 MC, measure incident and reflected power of 10, 50, 100 and 500 watts full scale. Also four lower power elements covering same range at 1, 5, 10 and 50 watts full scale. Power is read direct on linear scale

accurate within $\pm 5\%$. Insertion VSWR less than 1.08 (Type N connectors) except on 1 watt ranges where VSWR is 1.15. 50 ohm impedance. Model 164 available with Type N, Type C or UHF connectors, male or female. Request Bulletin 111.

Plug-In Elements for Model 164 (Note: Model 164 does not include plug-ins. Order separately as needed.)

180 Series—1, 5, 10, 50 watts full scale

180-52: 25 MC to 52 MC
180-148: 50 MC to 148 MC
180-470: 144 MC to 470 MC
180-1000: 460 MC to 1000 MC

181 Series—10, 50, 100, 500 watts full scale

181-250: 25 MC to 250 MC
181-1000: 200 MC to 1000 MC

270 Series—50, 100, 500, 1000 watts full scale

270-75: 10 MC to 75 MC

Accessories Available: Model 164-LS Equivalent Transmission Line Section; Model 164-CC Carrying Case.

THERMOPILE

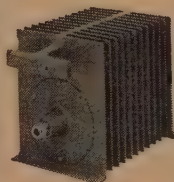


Model 189A Differential Thermopile consists of differential temperatures in flowing fluids to electrical energy. Internal resistance approx. 5 ohms, output voltage approx. 1 mv per $^{\circ}$ C, max. pressure 75 psi. Request Bulletin 119.

50 OHM COAXIAL TERMINATIONS

New compact, light weight Model 160 series coaxial terminations feature stable operation over a wide frequency range and up to high ambient temperatures. High surface to volume ratio provide a very low VSWR from dc to 3300 MC.

Model 160-5: 5 watts; Model 160-20: 20 watts; Model 160-100: 100 watts; Model 160-500: 500 watts. Request Bulletin 114.



CALORIMETER, X-BAND WATER LOAD

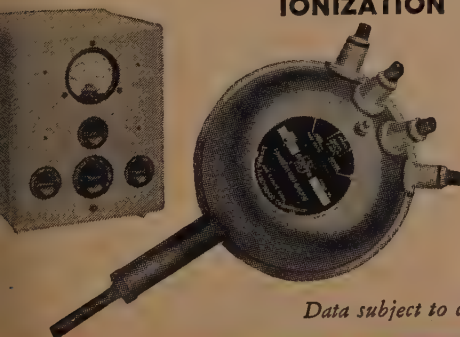


Model 190A Calorimeter and XB187A Water Load provide fast, accurate power measurement from a few watts to kilowatts. Accuracy $\pm 2\%$. Calorimeter ranges 300, 600, 1,500, 3,000 watts, max. 50 psi, sensitivity 1.5 mv. Water Load range 7 KMC to 10 KMC, VSWR less than 1.2, power 1 Kw CW, 300 Kw peak. Request Bulletin 116.

MODEL 194A-A PEAK-READING POWER MONITOR

New bi-directional instrument for radar and other pulsed measurements. Quickly measures peak power directly, independently of duty cycle. Write for Bulletin 122.

IONIZATION GAUGE AND AMPLIFIER



Model 193A Ionization Gauge and Model 192A Ionization Gauge Amplifier provide convenient, dependable and accurate monitoring of pressures during processing from 10^{-4} to 10^{-1} mm Hg. Monel-encased Phillips type ion gauges operate for months without attention; amplifier includes high voltage rf power supply, VTVM, heater transformer and low voltage supply. Request Bulletin 118.

Data subject to change without notice.

MENLO PARK, CALIFORNIA, U. S. A.

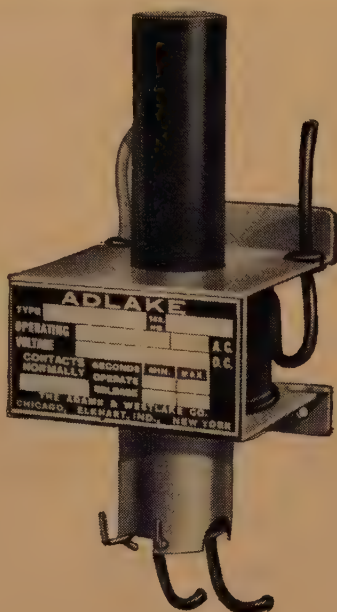
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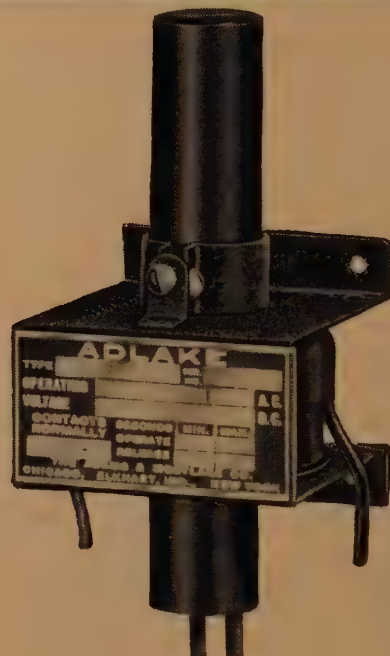
Typical advanced relays

from the complete

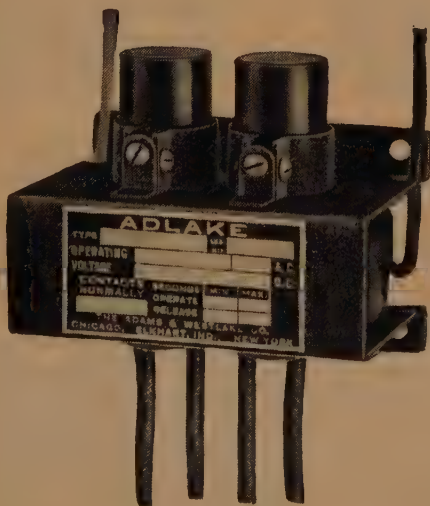
Adlake



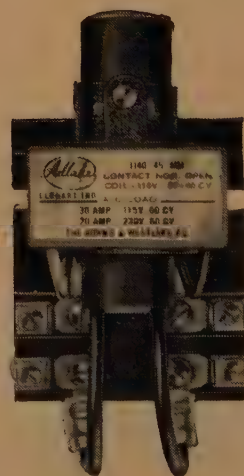
1040 MODEL



1101 MODEL



1123 MODEL



1140 MODEL

line of mercury plunger-type relays

1040 MODEL

Contact arrangement: Normally open or Normally closed. Single pole—Single throw

Available in:

Time delay Slow operate—Quick release
Types of Slow operate—Slow release
 Quick operate—Slow release

Maximum time delay: 20 minutes

Contact rating: Time delay relays to 15 amps.

Load type: Quick operate—Quick release

Load relays to 50 amps. Non-inductive, 115 v, 60 cy.

Voltage Coil: Up to 440 volts A.C. (25-50-60 cy.)

Maximum size: Height $5\frac{5}{8}$ "—width $2\frac{1}{2}$ "—projection $1\frac{9}{32}$ "

Also available in quick acting, contact normally open or contact normally closed.

1101 MODEL

Available with same features as Companion 1040 Model. Complete information on all relays illustrated available on request. Height is $5\frac{1}{2}$ ".

1123 MODEL

Double Pole Load Relay

(Also available with time delay contacts)

Contact Arrangement: 2 contacts Normally open or 2 contacts Normally closed
Double pole—Single throw

Contact rating: Time delay contacts up to 15 amperes. Load relays to 50 amperes. Non-inductive 115 v, 60 cy.

Voltage Coil: Up to 440 v., 50/60 cy. or 220 v. d.c.

Maximum size: Height, $3\frac{1}{4}$ "—width, $3\frac{3}{4}$ "—projection, $2\frac{5}{8}$ "

1140 MODEL

"MIGHTY MIDGET"

Contact Arrangement: Normally open or normally closed—Single pole—Single throw.

Available in: Quick acting load type only.

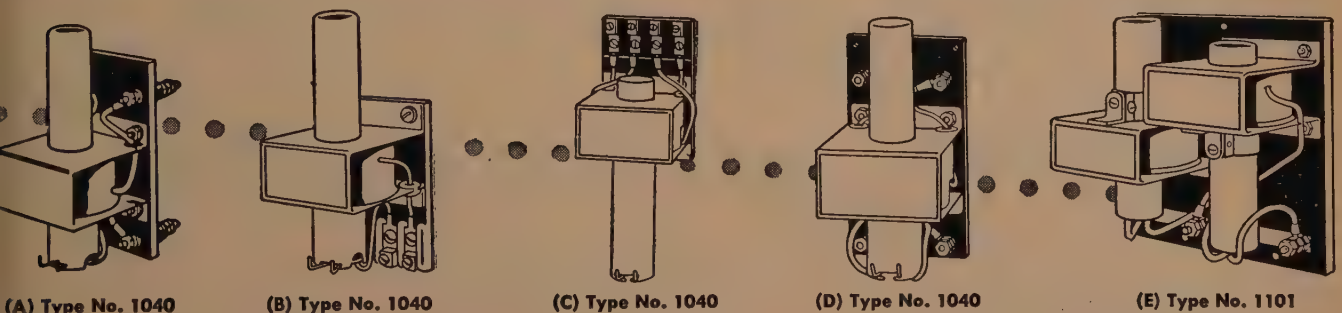
Contact rating: 30 amperes non-inductive 115 volts, 60 cy.

Voltage Coil: Up to 440 v, 60 cy. and 220 v. d.c.

Maximum size: Height, contact normally closed, $3\frac{7}{8}$ "; contact normally open, $4\frac{1}{4}$ "—width $2\frac{17}{32}$ "—projection $2\frac{3}{8}$ ".

Equipped with compression type terminals to simplify installation.

Special mounting arrangements for Adlake mercury plunger type relays



(A) Type No. 1040—Normally open relay with back panel equipped with screw terminals for back connecting. (No. 1040-83 series)

(B) Type No. 1040—Normally open time delay or quick-acting relay with back panel equipped with compression terminals. (No. 1040-44 series)

(C) Type No. 1040—Normally closed time delay or quick-acting relay with back panel equipped with compression terminals. (No. 1040-45 series)

(D) Type No. 1040—Normally open time delay relay with back panel equipped with screw terminals for front connecting. (No. 1040-85 series)

(E) Type No. 1101—Double unit relay assembly. Can be made with two-time delays, or time delay and load relay, or two-load relays. (No. 1101-53 series)

These are but a few of the possible mounting arrangements. Our engineering department is at your disposal to assist in developing any ideas to fit your requirements.

For complete details of the broad ADLAKE Relay line, send for your copy of the new ADLAKE Relay Catalog.

Address: The Adams & Westlake Company, 1953 N. Michigan, Elkhart, Indiana. In Canada, write Powerlite Devices Limited, of Toronto.

The Adams & Westlake Company

Established 1857 • ELKHART, INDIANA • New York • Chicago

the original and largest manufacturers of mercury plunger-type relays



You'll find the Type and Size Fuse you need

• • • IN THE COMPLETE LINE OF BUSS AND FUSETRON FUSES

The following is a representative selection of the complete BUSS line of fuses that includes standard, dual-element (slow blowing), renewable and one-time types — in sizes from 1/500 ampere up . . . plus a companion line of fuse clips, blocks and holders.

BUSS AGX FAST ACTING FUSES

1/4 x 1 in. Glass tube 1/500 to 2 amp.



BUSS IBM SIGNAL ACTIVATING FUSES

1/4 x 1 1/4 inch. Silverplated pin pops out when fuse is blown and activates signal or alarm.



FUSETRON MDL FUSES

1/4 x 1 1/4 inch. Dual-element — slow blowing type 1/100 to 30 amp.



BUSS ABC CERAMIC TUBE FUSES

1/4 x 1 1/4 inch. High interrupting capacity fuses 1/4 to 30 amp.



BUSS GJV PIG TAIL FUSES

1/8 to 6 amp. Solder into circuit wires.



BUSS SFE STANDARD FUSES

Fuses of different amperages are different lengths — to make it impossible to insert too large a size.



FUSETRON FNM FIBRE TUBE FUSES

1 3/32 x 1 1/2 inch. Dual-element — slow blowing type.



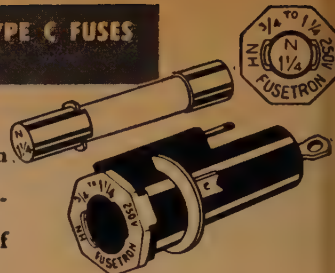
FUSETRON TYPE N and TYPE C FUSES and FUSEHOLDERS

Especially suitable for protection of TV

Ears on fuses match slots in holder.

Marking on fuse and fuseholder in direct view.

Safeguard against use of wrong size and type of fuse.



BUSS KLM HIGH INTERRUPTING CAPACITY FUSES

1 3/32 x 1 1/2 inch. Capable of safely interrupting 68,000 amps.



FUSETRON ACK CLAMP-TYPE FUSES

20 to 300 amp., Dual-element type.



BUSS ACO AIRCRAFT FUSES

Mechanical Indicating — Limiter type 1 to 75 amp.



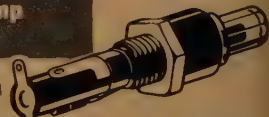
BUSS Series HJ and HK Non- Indicating FUSEHOLDERS

Panel mounted for 1/4 x 1 inch and 1/4 x 1 1/4 inch fuses.



BUSS Series HJ and HK Lamp Indicating FUSEHOLDERS

Panel mounted for 1/4 x 1 inch and 1/4 x 1 1/4 in. fuses.



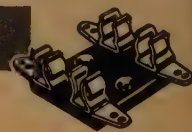
BUSS No. 4051 ONE-PIECE CLIP and TERMINAL

Solder type terminal for 1/4 inch fuses.



BUSS No. 4409 FUSE BLOCKS

Small Base, solder type Side Terminals.



BUSS No. 4512 FUSE BLOCKS

Full Base, Screw type Terminals.



For more detailed information to help you select fuses and fuseholders to meet your electrical protection needs . . . Write for bulletin SFB.

Or tell us your problem and let our Fuse Engineers assist you in getting the protection you require.

BUSSMANN MFG. CO.
(Div. of McGraw-Edison Co.)
University at Jefferson
St. Louis 7, Mo.



Makers of a complete line of fuses for home, farm, commercial, electronic and industrial use.

NEED A Special REGULATED POWER SUPPLY ?

MERCURY can supply any input voltage — output voltage — current — regulation — ripple — size — finish — quantity.

For a long time the MERCURY organization has been designing and producing reliable REGULATED POWER SUPPLIES for general use. These units were considered catalog items although frequently modifications were made to suit customers requirements.

In recent years we have received many inquiries for SPECIAL POWER SUPPLIES. Now we have established a new department to handle these special requirements of our customers. You are invited to submit inquiries relative to your special problems. All inquiries will receive a prompt reply.

Some typical units designed and
manufactured by **MERCURY**

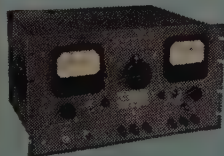
DESIGN



PRODUCTION

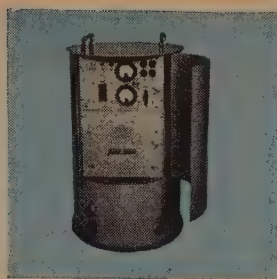
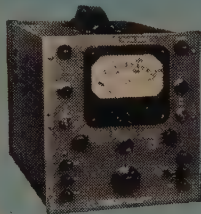
Model 610-A

Regulated Power Supply
Input: 117 volts AC
50/60 cycles
Output: 0-600 volts DC at
600 Ma.
Regulation: .25% from
10-600 volts
Ripple: 5 millivolts



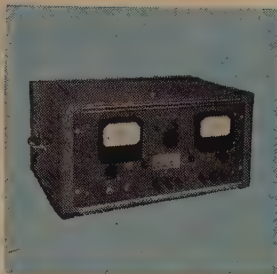
Model 721-A

Input: 117 volts AC
50/60 cycles
Output: 0-500 volts DC at
300 Ma.
Regulation: .25% from
10-500 volts



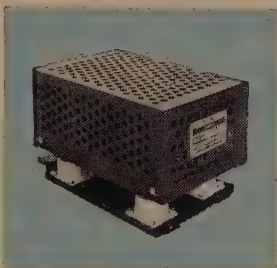
Electronic Inverter

Input: 220 V. D.C.
Output: 115 V. A. C. 60 Cycles
1000 Watts
Regulation: 5%
Special Features included
Size, weight, shape, finish
and application



Model 508-A

Input: 117 volts AC
50/60 cycles
Output: 0-600 volts DC at
1 amp.
Regulation: .25% from
10-600 volts



Model E-1A Converter

400 cycle Regulated Power
Supply
Input: 110 volts AC
380/1000 cycles
Output: 300 volts DC at
400 Ma.
Regulation: 1% at 300 volts
300 volts
Ripple: 80 millivolts



Model E-1B Converter

400 cycle Regulated Power
Supply
Input: 117 volts AC
380/1000 cycles
Output: 150 volts DC at
100 Ma.
Regulation: .1% at
150 volts
Ripple: Less than 3 millivolts

STANDARD ITEMS TOO !

MERCURY, long a recognized leader in the Continuously Variable Regulated D. C. Power Supply field, would like to send you their latest catalog of Standard Regulated Power Supplies and related items.

May we have your name and address?

MERCURY

electronic company

Designers — Developers — Producers of Electronic Equipment

RED BANK, NEW JERSEY

SEND BLUEPRINT
OR SAMPLES
FOR ESTIMATE

We'll prove **ART WIRE**
highspeed automatic production
means **UNIFORM PRECISION**
LOWER UNIT COSTS

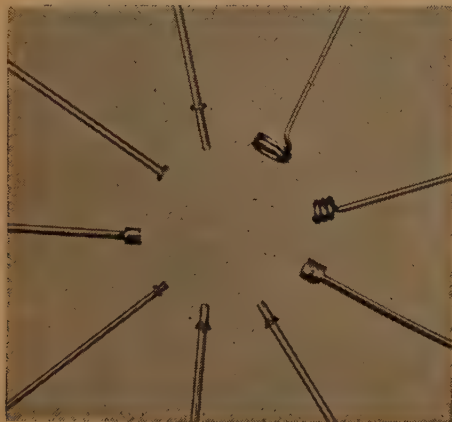
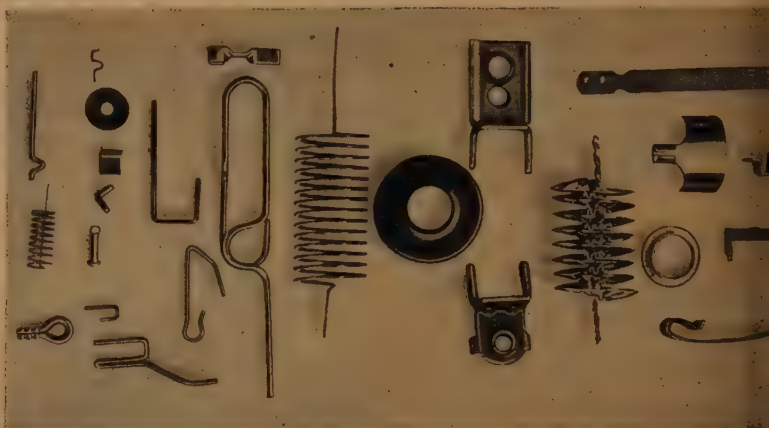
WIRE FORMS AND METAL STAMPINGS

Straightening and Cutting: Perfect straight lengths to 12 ft. Diameters: .0015 to .125.

Wire Forms: .0015 to .125 diameter.

Small Metal Stampings: .0025 to .035 thickness, .062 to 3 inches wide.

We specialize in production of parts for electronic, cathode ray tubes and transistors.



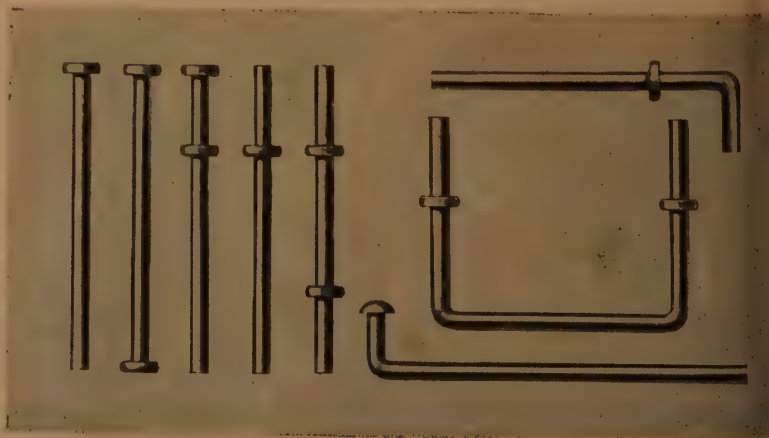
TERMINAL LEADS FOR RESISTORS, TRANSISTORS, CAPACITORS, ETC. These components can be supplied with coiled heads, flattened heads, wound heads, heads upset and flanged—with wide possibilities for variation in size and length.



FOR THE HERMETIC SEAL INDUSTRY Headed pins, flanged pins, base pins. Straight wires with rounded ends. Parts made of Kovar, Rodar, Therlo and other glass seal alloys.

UPSET PINS

Continuous uniformity from the first to the millionth unit. In a wide variety of metals and alloys, diameters from .010 to .090. Thickness of upset flange on head can vary from .010 inch on fine wire to .062 inch on heaviest wire. Flanges precision-positioned to your specifications. Flanges and heads with rounded edges.



Send for literature
with complete information.

art wire and stamping co.

18 Boyden Place, Newark, New Jersey

Important Question No. 3

Which company offers maximum savings on custom-built delay lines?



In delay lines you waste money of "overspecification" of custom engineering service and lab re- specialists in this field. ESC de- cations of fixed and variable de- the realistic and economical well-funded equipment back-

- 1st** in sales!
- 1st** company devote manufacture of
- 1st** in research, des of custom-built
- 1st** to submit the m with all custom-

Exceptional employment



Important Question No. 2



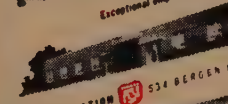
Who submits the most complete laboratory reports with all custom-built delay line prototypes?



It is a known fact that ESC Corpora- tive laboratory reports submitte- port includes submitting electrical res- and output pulse shape and output- tion of the electrical characteristics.

- 1st** in sales!
- 1st** company devoted o manufacture of del
- 1st** in research, design of custom-built de

Exceptional employment oppor-



Important Question No. 1

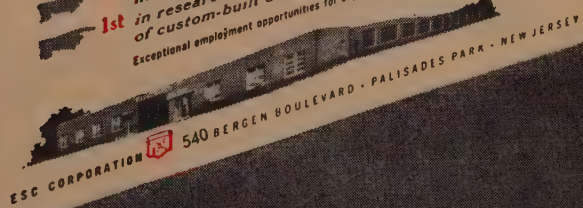


Who produces more custom-built delay lines than any other company in America?



- 1st** in sales!
- 1st** company devoted exclusively to the manufacture of delay lines!
- 1st** in research, design and development of custom-built delay lines!

Exceptional employment opportunities for engineers experienced in pulse techniques



MANUFACTURERS OF CUSTOM-BUILT AND STANDARD-CATALOGED...

- LUMPED-CONSTANT DELAY LINES
- DISTRIBUTED CONSTANT DELAY LINES
- VARIABLE DELAY NETWORKS
- PULSE TRANSFORMERS

ESC CORPORATION 534 BERGEN BOULEVARD • PALISADES PARK • NEW JERSEY

Tailor-Made Fasteners in Volume Quantities



MINIATURE BATTERY CONNECTORS

For use with small "B" batteries, afford quick and positive polarized electrical connections and worthwhile space savings on small electronic equipment.



POLYETHYLENE MOUNTING FOOT

No mar no scratch glide for use on TV receivers, record changers and small appliances. Assembles into round hole in either wood or metal cabinets.

FISHTAIL RATCHET PLATE

Made in a wide range of sizes to hold on smooth metal, die-cast or plastic studs. For use on refrigerators, radio cabinets, washing machines and other products to hold medallions, name plates, etc.



VIBRATOR GROUNDING FASTENERS

Holds 1 1/8" dia. beaded or non-beaded vibrator. Vibrator Can grounded to chassis. Holding prongs designed to hold several types of Cans.



RUBBER FOOT

Snap-In Rubber Foot for Record Changers and Phonograph Mountings eliminates threaded member, lock washer and nut thereby speeding assembly time and reducing costs.



NYLON COIL NUT

Designed to snap into a TV tuner and receive a 4-40 or 4-48 coil adjusting screw. No coil form or coil form fastener required.

SPEAKER MOUNTING BOLT

Pronged head prevents bolt from turning in speaker panel during application of nut and lock washer, permits one-side attachment providing production-line savings.



NYLON SNAP-IN NUT

Serves as insulator between "hot TV chassis" and cabinet. Snaps into square chassis hole and secures to cabinet with sheet metal screw.



PLUG BUTTONS

Made to snap into hole sizes 1/8" to 3". Can be embossed with ornamental or functional designs. Removable. Supplied with various finishes, in a variety of shapes and sizes.



QUICKEY FASTENER

Eliminates need for welding or swaging studs to sheet metal stampings, facilitates nesting, eliminates damage in transit because Quickey snaps in just before final assembly.

TRIMOUNT STUDS

Designed to hold two or more thicknesses of material together. Easily installed by hand. Insure vibration proof attachment. Permanent or removable attachment. Wide variety of shapes and sizes.



UNITED-CARR

FASTENER CORP.

CAMBRIDGE 42, MASSACHUSETTS

DOT

Parts illustrated are representative of the thousands of different specialized fasteners and allied devices designed and manufactured in volume by United-Carr and its subsidiaries for leading manufacturers of electronic equipment. United-Carr's wide and varied experience with special fastening problems in the automotive, aviation and appliance fields provides an unequalled background of technical knowledge which may well be applicable to your special needs.

Ucinite Electrical Assemblies



BATTERY CONNECTORS

Wired snap-on units for use with batteries equipped with United-Carr electrical snap fasteners. Wiring to customer's specifications.

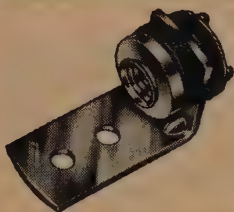


BANANA PINS

Four sizes of plugs with one-piece beryllium copper springs. Adaptable mounting ends in threaded, staking, or solder lug types. Similar Mating Jacks also available.

SHOCK MOUNTS

Offered in several sizes — brackets and diameter of rubber bushings can be varied. With threaded Teenuts or plain bushings. Insulated versions if needed.



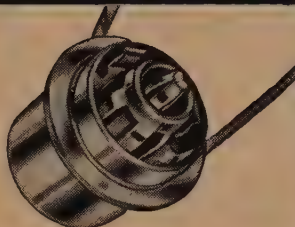
ANODE CONNECTORS

Plug button contacts for positive firm connections. Corona resistant neoprene or silicon shields in straight or right angle types. Wiring to customer's specifications.



TUBE CAPS

Positive gripping, heat treated steel springs in corona resistant metal housing. Insulated or non-insulated. Wired to specifications. Type shown has silicon shield for special application.



MAGNETRON CONNECTORS

For heater and heater cathode terminals of magnetrons. Available in many variations to answer specific needs.

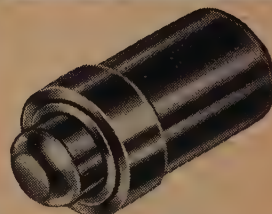
SWITCHES

Look type switches manufactured as a licensee. Variety of rotary and push-button assemblies to specifications.



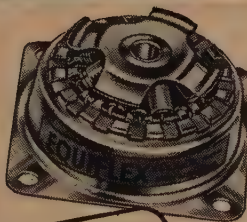
SNAP SWITCHES

Precision, momentary contact push-button switches. Small and dependable. Several circuit arrangements. Water tight version shown.



TEST JACK

Ucinite's quality jack for .080 probes. Beryllium copper contacts. Nylon insulation in colors. Metal shell for firm dependable mounting.

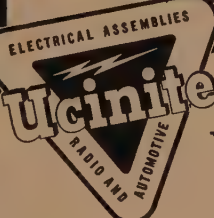


VIBRATION ISOLATORS

Equiflex (1 to 1 ratio) metal mounts ensure long life, fit small spaces, can be used in any direction. Three sizes, cup or plate mountings.

METAL STAMPINGS

Volume production in Metal stampings. Years of engineering and tooling skill available to solve your particular problem.



With years of specialized experience in the electronics field and complete facilities for the volume production of small metal stampings as well as the assembly of metal to plastic and ceramic components, Ucinite is fully equipped to supply you with special electrical parts and assemblies...designed, assembled, wired and marked to your specifications. For complete design, engineering and production service, call your nearest Ucinite field engineer.

The UCINITE Company

DIVISION OF UNITED-CARR FASTENER CORP.

Newtonville 60, Massachusetts

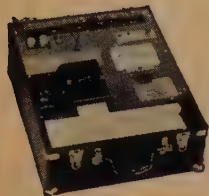
When ordering or seeking information please mention Electronics Buyers' Guide.



ELECTRONIC Test Instruments



9 TUBE TESTERS FILL ALL REQUIREMENTS



MODEL 123A

CARDMATIC TUBE TESTER

Automatic Tube Testing Machine

Model 123A: An automatic tube test to laboratory accuracy that instantly selects any tube to meet the exact requirements of your specific circuit application. Ideal for production line use by factory personnel, or for TV service companies.



MODEL 539B

PORTABLE TUBE TESTER

Most Accurate

Model 539B: Features simplicity of operation in providing a complete and accurate evaluation of electron tubes. Has Mutual Conductance circuits, 6 micromho ranges, 4 AC Signal voltages, metered line voltage, metered grid voltage and other important features.

7 OSCILLOSCOPES MEET SPECIALIZED REQUIREMENTS

LABORATORY CATHODE RAY OSCILLOSCOPE

Wide Range . . . Versatile



MODEL 770

Model 770: Provides unusually wide range of DC to 5 MC. 10 M.V. RMS per inch sensitivity. Built-in calibrating voltages. New flat-faced tube. Illuminated calibrated screen. Mu-metal shield. Shock mounted. This highly stable 'Scope is laboratory quality throughout.



MODEL 685

INDUSTRIALS' 5-INCH PORTABLE

Model 685: DC amplifiers and DC to 750KC response. Sensitivity is 20 MV RMS per inch. Shock mounted amplifiers and good circuit design provide excellent stability for use in all phases of electronic work. The illuminated calibrated screen and ideal design features will please many an industrial who would expect to pay much more for this quality and completeness.



MODEL 385

SMALLER SIZE LABORATORY OSCILLOSCOPE

3-Inch Portable

Model 385: DC to 4 MC, within 3 db, 0.75 RMS volts per inch sensitivity. Sweep circuit oscillator; 3 cycles to 50 KC. Input impedance: vertical and horizontal amplifiers; 2.2 megohms—25 mmf. Features replaceable circuit sections. High quality throughout. Also available in portable, moisture-proof, weather-proof aluminum carrying case as preferred by field engineers.

able, moisture-proof, weather-proof aluminum carrying case as preferred by field engineers.

INDUSTRIAL LABORATORY OSCILLOSCOPE

3-Inch Rack Mount



MODEL 387R

Model 387R: Popular rack-mount style in an accurate 3-inch oscilloscope. Features identical vertical and horizontal amplifiers. DC to 500 KC response. 10 MV RMS sensitivity. Designed to permit versatile use in all phases of electronic work.

11 GENERATORS WITH SPECIALIZED FUNCTIONS

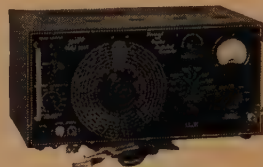


MODEL 710

SINE-SQUARE WAVE GENERATOR

For Laboratory & Industrial Use

Model 710: Provides an accurately calibrated source of sine wave and square wave functions over a wide frequency range. Sine wave total harmonic distortion below 1%. Hum level better than 90 db down. Square wave rise time less than .1 Microsecond. 20 cycles to 1 MC in five ranges on both sine and square waves.



MODEL 295X

MICROVOLT SIGNAL GENERATOR

125 KC to 175 MC on Fundamentals

Model 295X: Ideal for mobile radio and other communication equipment design and maintenance. Output 0.1 microvolt to 100,000 microvolts. 125 KC to 175 MC continuous on fundamentals. 400 cycle modulation—approximately 30%. Attenuation down to 0.1 microvolt—no external attenuator pad required. Vernier Control permits hairline settings. Silverplated copper cage shielding. Test leads are furnished.

5 VTVM and VOM INSTRUMENTS



MODEL 209A

TRUE VACUUM TUBE

Laboratory Size and Accuracy

Model 209A: Contains large 9" meter with zero-center scale. Highly accurate for servicing industrial electronic equipment. DC Volts: 0-1200 in 6 ranges. AC Peak-to-Peak Voltage: 0-1200 V. in 6 ranges. Capacitance: 0.1 to 10,000 MMF in 2 ranges. 0-1000 MF in 5 ranges. 50 MH to 100 henries. 0.1 ohm to 10,000 megohms in 7 ranges.



MODEL 455

NEW VOLT-OHM-MILLIAMMETER

You Can't Burn It Out!

Model 455: New design portable VOM. Includes all practical ranges. Features patented protection system which protects both the meter and associated circuits from damage due to accidental overload. Quality designed for utility and attractiveness. Neoprene carrying case available.

HIGHLY ACCURATE DC and AC PORTABLE INSTRUMENTS



MODEL 14

accuracy to 0.2%. Also available is a complete line of pocket portables.

METERS

The many special movements developed by HICKOK are: electro-dynamometers, self-contained frequency meters, galvanometers, true logarithmic deflections, special curves for special purposes and ruggedized designs for highest shock tests. Full technical information on the complete line of HICKOK instruments and test equipment is available on request. Kindly list details of your requirements and ask for Catalogs No. 32 and 33.

THE HICKOK ELECTRICAL INSTRUMENT COMPANY

10514 DUPONT AVENUE

CLEVELAND 8, OHIO

HIGHEST QUALITY ELECTRICAL AND ELECTRONIC TEST INSTRUMENTS

There's a standard PERKIN model for your every need!

In addition to the 28 volt models featured at the right, the following units are also available:

OTHER 28 VOLT MODELS

Model	Volts	Amps	Reg.	AC Input (60 cps)	Ripple rms
28-5VFM	0-32 V	5	20% (24-32 V range)	115 V 1 phase	2%
28-10WX	24-32 V	10	$\pm 1\frac{1}{2}\%$	100-125 V 1 phase	1%
28-15VFM	0-32 V	15	20% (24-32 V range)	115 V 1 phase	5%
28-50WX	24-32 V	50	$\pm 1\frac{1}{2}\%$	230 V* 3 phase	1%
MR2432-200	24-32 V	200	$\pm 1\frac{1}{2}\%$	230 V* 3 phase	1%
MR2432-300	24-32 V	300	$\pm 1\frac{1}{2}\%$	230 V* 3 phase	1%
MR2432-500	24-32 V	500	$\pm 1\frac{1}{2}\%$	230 V* 3 phase	1%

* $\pm 10\%$. Also available in 460 V $\pm 10\%$ AC input. Will be supplied with 230 V input unless otherwise specified.

6, 12, 115 VOLT (NOMINAL) MODELS

Model	Volts	Amps	Reg.	AC Input (60 cps)	Ripple rms
6-5WX	6 $\pm 10\%$	5	$\pm 1\%$	95-130 V 1 phase	1%
6-15WX	6 $\pm 10\%$	15	$\pm 1\%$	95-130 V 1 phase	1%
6-40WX	6 $\pm 10\%$	40	$\pm 1\%$	95-130 V 1 phase	1%
12-15WX	12 $\pm 10\%$	15	$\pm 1\%$	95-130 V 1 phase	1%
115-5WX	115 $\pm 10\%$	5	$\pm 1\frac{1}{2}\%$	95-130 V 1 phase	1%
MR15125-S	15-125	5	$\pm 1\%$ †	95-130 V 1 phase	1%†
6125-25**	115-125	25	1½-4%	230/460 V 3 phase	5%

**Germanium Rectifier Unit †Increases to 2% @ 15 V.

PERKIN SALES OFFICES

New York Area
N. J.—MAkt 3-1454
New England Area
Mass.—MURdk 3-3252
Philadelphia
BR 5-2600
Chicago
PA 5-6824
Seattle
LA 9000
St. Paul
MI 6-2621
Atlanta
TR 6-3020
Winston-Salem
4-0750
Charlotte
ED 2-7356

Redwood City, Cal.
EM 9-3354
Albuquerque
5-9897
Denver
AL 5-1196
Phoenix
AM 5-0274
Euclid, O
RE 2-7444
Dayton
WA 5426
Canada
Agincourt,
Ontario
AX 3-7011
Foreign
N. Y. BR 9-1296

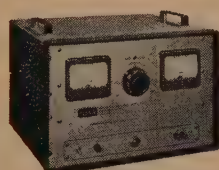
PERKIN...THE LEADER

in tubeless magnetic
amplifier regulated
DC POWER SUPPLIES
No Moving Parts • No Vibrating Contacts

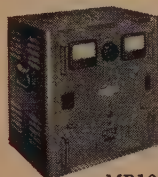
IMMEDIATE
DELIVERY
FROM STOCK



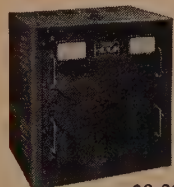
Model MR532-15A



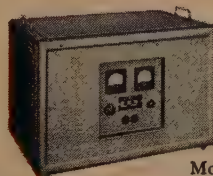
Model M60V



Model
MR1040-30A



Model
28-30 WXM



Model
MR2432-100XA

2-36 VOLTS @ 15 AMPS SPECIFICATIONS

Regulation: 5-32 Volt Range: $\pm 1\frac{1}{2}\%$
2-5 Volt and 32-36 Volt Range: $\pm 2\%$
AC Input: 105-125 Volts, (for 2-32 V.DC), 110-125 V, (for 32-36 V.DC), 1 phase, 60 cps (8 amps)
Ripple: 1% rms max. (@ 36 volts and full load. Increases to 2% @ 2 volts and full load).
Remote Sensing • Vernier Control

0-32 VOLTS @ 25 AMPS SPECIFICATIONS

Regulation: $\pm 1\%$ @ 28 Volts (Regulation increases to 2% over range of 24-32 volts; does not exceed 2 volts over 4-24 volt range. Not stabilized for AC line changes.)
AC Input: 115 Volts, 1 phase, 60 cps (12 amps).
Ripple: 1% rms (@ 32 volts and full load—2% rms max. @ any voltage above 4 volts).

5-40 VOLTS @ 30 AMPS SPECIFICATIONS

Regulation: $\pm 1\%$ (over entire 5-40 volt range)
AC Input: 100-130 Volts, 1 phase, 60 cps
Ripple: 1% rms

24-32 VOLTS @ 30 AMPS SPECIFICATIONS

Regulation: $\pm 1\frac{1}{2}\%$
AC Input: 100-125 Volts, 1 phase, 60 cps (20 amps). (Unit rated for DC output of 28 volts $\pm 10\%$ for 95-130 volt input.)
Ripple: 1% rms

24-32 VOLTS @ 100 AMPS SPECIFICATIONS

Regulation: $\pm 1\frac{1}{2}\%$
AC Input: 208, 230 or 460 Volts, $\pm 10\%$, 3 phase, 60 cps (14, 12 and 6 amps respectively). 230 volt input will be supplied unless otherwise specified.
Ripple: 1% rms

Wire factory collect for prices... Write for catalog.



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Representatives in Principal Cities

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GOLD BONDED

RADIO RECEPTOR GERMANIUM DIODES

DIMENSIONS
Diameter: .105" max.
Length: .270" max.
Lead diameter: .020"
Lead length: 1.25"



Actual Size

GERMANIUM GOLD BONDED GLASS DIODE CHARACTERISTICS

All ratings and characteristics listed are at 25°C unless otherwise specified

GENERAL PURPOSE TYPES

Code No.	Minimum Forward DC Current @ + IV (MA)	Maximum Inverse Operating Voltage	Peak Inverse Voltage	Max. Reverse DC Current in μ A & Corresponding Resistance (Ohms) at Indicated Voltages	Max. Continuous DC Forward Current (MA)
1N67A	4	80	100	5 (1meg) @ 5V; 50 (1meg) @ 50V	
1N68A	3	100	130	625 (160K) @ 100V	
1N89	3.5	80	100	8 (625K) @ 5V; 100 (500K) @ 50V	
1N90	5	60	75	500 (100K) @ 50V	
1N95	10	60	75	500 (100K) @ 50V	
1N96	20	60	75	500 (100K) @ 50V	
1N97A	20	80	100	8 (625K) @ 5V; 100 (500K) @ 50V	
1N98A	40	80	100	8 (625K) @ 5V; 100 (500K) @ 50V	
1N99A	20	80	100	5 (1meg) @ 5V; 50 (1meg) @ 50V	
1N100A	40	80	100	5 (1meg) @ 5V; 50 (1meg) @ 50V	
1N116A	10	60	75	100 (500K) @ 50V	
1N117A	20	60	75	100 (500K) @ 50V	
1N118A	40	60	75	100 (500K) @ 50V	
1N126*	5	60	75	50 (200K) @ 10V; 850 (59K) @ 50V	
1N127*	3	100	125	25 (400K) @ 10V; 300 (167K) @ 50V	
1N128*	3	40	50	10 (1meg) @ 10V	
1N198*	4	80	100	75 (133K) @ 10V; 250 (200K) @ 50V; at 75° C	
DR315	50	120	150	50 (2meg) @ 100V	
DR316	50	100	125	100 (1meg) @ 100V	
DR317	50	80	100	50 (1meg) @ 50V	
DR318	50	60	75	2 (5meg) @ 10V	
DR319	50	60	75	5 (2meg) @ 10V	

HIGH TEMPERATURE TYPES (rated at 75° C)

1N198*	5	50		75 (133K) @ 10V; 250 (200K) @ 50V	—
DR321	200	50		125 (400K) @ 50V	45
DR323	100	50		200 (250K) @ 50V	40
DR324	100	50		500 (100K) @ 50V	40
DR325	100	50		75 (133K) @ 10V; 250 (200K) @ 50V	40

HIGH CONDUCTANCE TYPES

DR301	400	100	125	100 (500K) @ 50V	100
DR302	400	80	100	100 (500K) @ 50V	100
DR303	400	60	75	50 (400K) @ 20V	100
DR309	400	80	100	10 (1meg) @ 10V; 50 (1meg) @ 50V	100
DR327	300	100	125	100 (500K) @ 50V	100
DR328	300	80	100	100 (500K) @ 50V	100
DR329	300	60	75	50 (400K) @ 20V	100
DR330	300	80	100	10 (1meg) @ 10V; 50 (1meg) @ 50V	100
DR305	200	100	125	100 (500K) @ 50V	100
DR306	200	80	100	100 (500K) @ 50V	100
DR307	200	60	75	50 (400K) @ 20V	100
DR308	200	80	100	10 (1meg) @ 10V; 50 (1meg) @ 50V	100
1N281	100	60	75	30 (333K) @ 10V; 500 (100K) @ 50V	80
DR310	100	120	150	50 (2meg) @ 100V	80
DR311	100	120	150	100 (1meg) @ 100V	80
DR312	100	100	125	5 (2meg) @ 10V; 20 (5meg) @ 100V	80
DR313	100	80	100	2 (5meg) @ 10V; 20 (2.5meg) @ 50V	80
DR314	100	80	100	50 (1meg) @ 50V	80
DR326	100	60	75	250 (200K) @ 50V	80

COMPUTER TYPES

Code No.	Min. Forward DC Current at Specified Voltage (MA)	Maximum Inverse Operating Voltage	Reverse Resistance Characteristics (Min)†	Reverse Recovery Characteristics (Min)
DR401	20 @ 0.5V	60	400K between 10 & 50V @ 55° C	50K in 0.5 usec; 400K in 2.0 usec†
1N191	5 @ 1.0V	60	400K between 10 & 50V @ 55° C	50K in 0.5 usec; 400K in 3.5 usec†
DR402	20 @ 0.5V	60	200K between 10 & 50V @ 55° C	50K in 0.5 usec; 200K in 2 usec†
1N192	5 @ 1.0V	60	200K between 10 & 50V @ 55° C	50K in 0.5 usec; 200K in 3.5 usec†
DR403	20 @ 0.5V	60	500K between 10 & 50V	80K in 0.3 usec§
DR404	20 @ 0.5V	60	500K between 10 & 50V	50K in 0.3 usec§

*Jan type
†Test voltage is a continuous 60 CPS sine wave.

‡Switching from a forward current of 30 MA to a reverse of 35 volts.
§Switching from a forward current of 5 MA to a reverse of 40 volts.

The electrical characteristics of the following types and many others are also available: 1N34, 1N34A, 1N38, 1N38A, 1N48, 1N51, 1N52, 1N54, 1N54A, 1N55, 1N55A, 1N55B, 1N56, 1N56A, 1N58, 1N58A, 1N63, 1N69, 1N70, 1N81

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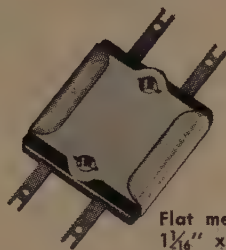
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Made possible by the improved new vacuum process requiring no artificial barrier layer

Developed by Siemens Organization of West Germany, used extensively throughout Europe . . . and now manufactured exclusively in the U.S.A. by Radio Receptor Company.

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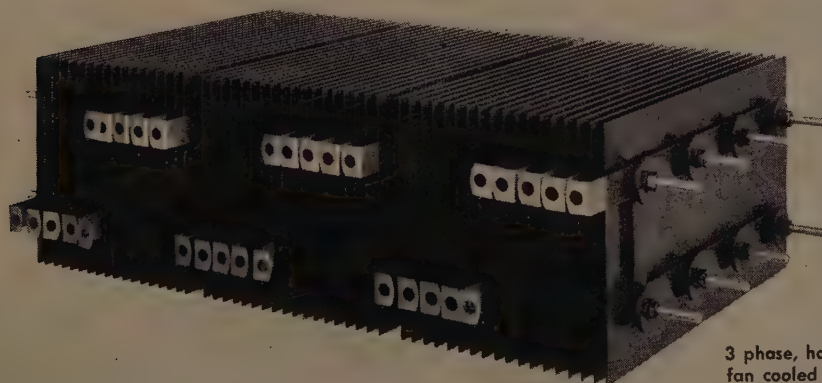
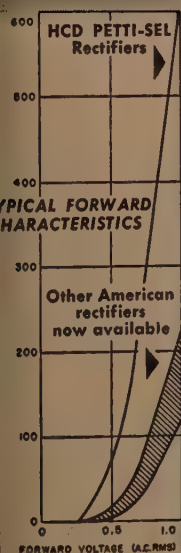
Plastic units, $\frac{7}{16}$ " x $\frac{7}{16}$ " x $\frac{3}{32}$ ",
single phase, center tap,
30V AC, 150 MA DC



Flat metal rectifiers,
 $1\frac{1}{8}$ " x $1\frac{1}{8}$ " x $\frac{1}{4}$ ",
bridge, 30V AC,
200 MA DC

- Better performance
- Estimated life 100,000 hours
- Lower forward voltage drop
- Suitable for high temperature applications
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Also available: Very high voltage rectifiers up to 296,000 peak inverse volts at 30 MA; Dwarfs — 5 MA up to 125V AC with resistive load; Cartridge types up to 17,000 peak inverse volts at 5 MA.

3 phase, half wave,
fan cooled rectifiers,
8" x 16" x 24",
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please mention Electronics Buyers' Guide.



HARDWICK-HINDLE : RESISTORS • RHEOSTATS

VITREOUS ENAMEL RHEOSTATS — Insulated shafts and mounting bushings

Type A-25 — Will withstand rugged treatment under adverse conditions. Has unusually smooth mechanical operation. Terminals of strong corrosion resistant alloy; permanently welded to winding form. Wound ring integral part of refractory base with vitreous enamel. Phosphor bronze actuating arm with graphite brush for smoothest action; excellent electrical control. Shafts insulated. 3 terminals for potentiometer or rheostat use. Added safety factor with new high temp. gray enamel.



Types H-50, H-100, H-150 give longer service, greater protection. Designed for extremes of humidity and abnormal atmospheric conditions. Unique "buss bar" brush automatically adjusts tension for continuous contact. Eliminates backlash; no binding. Perfect contact with winding surface. New High temp. gray enamel bonding increases safety factor and overall service. Improved rheostats comply with current standards of Military Specs MIL-R-22; RETMA, NEMA; listed by Underwriters Laboratories, Inc.



TABLES OF SIZES AND RATINGS OF RHEOSTATS

Tables on request for 5 higher wattage models — 225 to 1000 watts.

TYPE A-25 25 WATT RHEOSTAT				TYPE H-50 50 WATT RHEOSTAT			
Stock No.	Total Ohms	Max. Amps.*	Approx. No. Steps	Stock No.	Total Ohms	Max. Amps.*	Approx. No. Steps
0201	0.50	7.06	17	0301	0.50	10.0	25
0202	0.75	5.77	17	0302	0.75	8.16	25
0203	1.0	5.00	17	0303	1.0	7.06	52
0204	1.5	4.08	34	0304	1.5	5.77	52
0205	2.5	3.16	34	0305	2.5	4.48	52
0206	5.0	2.22	34	0306	5.0	3.16	52
0207	7.5	1.82	34	0307	7.5	2.58	52
0208	10	1.58	90	0308	10	2.22	98
0209	15	1.29	90	0309	15	1.82	98
0210	25	1.00	100	0310	25	1.41	98
0211	50	0.706	100	0311	50	1.00	129
0212	75	0.577	135	0312	75	0.816	153
0213	100	0.500	112	0313	100	0.706	157
0214	150	0.408	146	0314	150	0.577	187
0215	250	0.316	146	0315	250	0.448	258
0216	500	0.222	180	0316	500	0.316	308
0217	750	0.182	214	0317	750	0.258	294
0218	1000	0.158	248	0318	1000	0.222	390
0219	1500	0.129	292	0319	1500	0.182	364
				0320	2500	0.141	485
				0321	5000	0.100	590
				0322	7500	0.082	714
				0323	10000	0.070	750

TYPE H-100 100 WATT RHEOSTAT				TYPE H-150 150 WATT RHEOSTAT			
Stock No.	Total Ohms	Max. Amps.*	Approx. No. Steps	Stock No.	Total Ohms	Max. Amps.*	Approx. No. Steps
0401	0.50	14.2	30	0501	0.50	17.30	26
0402	0.75	11.6	30	0502	0.75	14.10	30
0403	1.0	10.0	30	0503	1.00	12.25	40
0404	1.5	8.16	30	0504	1.5	10.00	37
0405	2.5	6.34	54	0505	2.5	7.75	39
0406	5.0	4.48	54	0506	5.0	5.48	79
0407	7.5	3.66	54	0507	7.5	4.47	75
0408	10	3.16	54	0508	10	3.88	77
0409	15	2.58	112	0509	15	3.16	151
0410	25	2.00	108	0510	25	2.45	151
0411	50	1.42	127	0511	50	1.73	192
0412	75	1.16	151	0512	75	1.41	224
0413	100	1.00	160	0513	100	1.22	204
0414	150	0.816	190	0514	150	1.00	280
0415	250	0.634	250	0515	250	0.775	252
0416	500	0.448	302	0516	500	0.548	362
0417	750	0.366	303	0517	750	0.447	378
0418	1000	0.316	317	0518	1000	0.388	398
0419	1500	0.258	375	0519	1500	0.316	483
0420	2500	0.200	494	0520	2500	0.245	635
0421	5000	0.141	640	0521	5000	0.173	790
0422	7500	0.115	760	0522	7500	0.141	940
0423	10000	0.100	740	0523	10000	0.122	1020

*Thru all or any part of winding. Diameter of base: 1-9/16". Depth behind panel: 1-11/32". Mounting: Single hole for 3/8" bushing. Shaft: 1/4" diameter, projecting 1/2" beyond bushing. Standard Bushing: Will take panels up to 1/4". Mechanical Rotation: 285 Degrees. Non-Turn Feature: Standard position as shown. Changed on request. Terminals: Holes for No. 4 screw.

*Thru all or any part of winding. Diameter of base: 2 3/8". Depth behind panel: 1-7/16". Mounting: Single hole for 3/8"-32 bushing. Shaft: 1/4" diameter, projecting 1/2" beyond bushing. Standard Bushing: Will take panels up to 1/4". Mechanical Rotation: 300 Degrees. Non-Turn Feature: Standard position as shown. Changed on request. Terminals: Holes for No. 8 screw.

*Thru all or any part of winding. Diameter of base: 3 1/8". Depth behind panel: 1-23/32". Mounting: Single hole for 3/8"-32 bushing. Shaft: 1/4" diameter, projecting 1/2" beyond bushing. Standard Bushing: Will take panels up to 1/4". Mechanical Rotation: 300 Degrees. Non-Turn Feature: Standard position as shown. Changed on request. Terminals: Holes for No. 8 screw.

*Thru all or any part of winding. Diameter of base: 4". Depth behind panel: 1-31/32". Mounting: Two holes as shown. 10-32 x 5/8" screws furnished. Shaft: 1/4" diameter, projecting 1/2" beyond bushing. Standard Bushing: Will take panels up to 1/4". Mechanical Rotation: 300 Degrees. Non-Turn Feature: Single hole mounting supplied on request. Terminals: Holes for No. 8 screw.

RATING—current ratings shown for all Rheostats are for use in free air. When units are enclosed values should be reduced about 50%. Data on non-stock Rheostats special shafts and bushings; values intermediate to those listed; tapered windings; tandem assemblies, etc., furnished upon request.

TABLE OF RATINGS for FIXED VITREOUS ENAMELED RESISTORS

25 WATT SIZE Type 2B-35 2" Long x 3/8" O.D. Mounting Centers 2 1/2"			40 WATT SIZE Type 3 1/2 L-35 3 1/2" Long x 3/4" O.D. Mounting Centers 4"		
Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.
1001	5	2225	2001	5	2830
1002	10	1580	2002	10	2000
1003	25	1000	2003	25	1260
1004	50	700	2004	50	895
1005	75	575	2005	75	730
1006	100	500	2006	100	635
1007	150	410	2007	150	518
1008	200	353	2008	200	448
1009	250	316	2009	250	400
1010	500	224	2010	500	283
1011	750	182	2011	750	230
1012	1000	158	2012	1000	200
1013	1500	129	2013	1500	163
1014	2000	112	2014	2000	140
1015	2500	100	2015	2500	125
1016	3000	91	2016	3000	115
1017	3500	85	2017	4000	100
1018	4000	79	2018	5000	90
1019	5000	71	2019	7500	73
1020	6000	64	2020	10000	63
1021	7500	57	2021	12500	56
1022	10000	50	2022	15000	52
1023	12000	44	2023	20000	45
1024	15000	40	2024	25000	40
1025	20000	26	2025	35000	33
1026	25000	23	2026	50000	28

80 WATT SIZE Type 6 1/2 L-35 6 1/2" Long x 3/4" O.D. Mounting Centers 7"			160 WATT SIZE Type 8 1/2 F-35 8 1/2" Long x 1 1/8" O.D. Mounting Centers 9 3/8"		
Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.
3001	5	4000	4001	5	5660
3002	10	2830	4002	10	4000
3003	25	1790	4003	25	2530
3004	50	1260	4004	50	1788
3005	75	1030	4005	75	1460
3006	100	890	4006	100	1260
3007	250	565	4007	150	1030
3008	500	400	4008	250	800
3009	1000	283	4009	500	566
3010	1500	231	4010	750	461
3011	2000	200	4011	1000	400
3012	2500	179	4012	1500	326
3013	3000	163	4013	2000	282
3014	4000	141	4014	2500	253
3015	5000	126	4015	3000	231
3016	7500	103	4016	5000	179
3017	10000	89	4017	7500	146
3018	15000	73	4018	10000	126
3019	20000	63	4019	15000	105
3020	25000	56	4020	20000	89
3021	30000	52	4021	25000	80
3022	35000	48	4022	30000	73
3023	40000	45	4023	40000	63
3024	50000	40	4024	50000	56
3025	60000	36	4025	75000	46
3026	75000	32	4026	100000	40

with mounting brackets

Five stock sizes for great variety of applications. Ratings in accordance with NEMA standards, based on temperature rise 300° C. in free air. Data on types, sizes and values not listed here and for resistors with intermediate tap special mountings, etc. furnished on request.

200 WATT SIZE Type 10 1/2 F-35 10 1/2" Long x 1 1/8" O.D. Mounting Centers 11 3/8"

Stock No.	Ohms	Max. Milli-Amps.
5001	5	6310
5002	10	4470
5003	25	2830
5004	50	2000
5005	75	1635
5006	100	1414
5007	150	1155
5008	250	895
5009	500	632
5010	750	515
5011	1000	447
5012	1500	365
5013	2000	315
5014	2500	283
5015	3000	258
5016	5000	200
5017	7500	163
5018	10000	140
5019	15000	115
5020	20000	100
5021	25000	90
5022	30000	81
5023	40000	70
5024	50000	63
5025	75000	51
5026	100000	44

HARDWICK-HINDLE : RESISTORS • RHEOSTATS



ADJUSTABLE VITREOUS ENAMELED RESISTORS with mounting brackets

Resistor possesses the many advantages of Vitreous Enamel construction, plus an adjustable feature. Winding closely and evenly spaced, giving ample insulation between turns. Where winding appears exposed in track, underside tightly embedded in enamel, upper surface only exposed for contact with adjustable band. All sizes of Adjustable resistors listed here, furnished complete with mounting brackets and one adjustable contact band.



TABLE OF RATINGS

25 WATT SIZE Type K-25 2" Long x 5/8" O.D. Mount. Centers 2 1/2"			50 WATT SIZE Type K-50 4 1/2" Long x 5/8" O.D. Mount. Centers 5"			75 WATT SIZE Type K-75 6" Long x 5/8" O.D. Mount. Centers 6 1/2"		
Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.
6001	1	5000	7001	5	3160	8001	5	3870
6002	2	3540	7002	10	2240	8002	10	2730
6003	3	2890	7003	25	1420	8003	15	2230
6004	5	2240	7004	50	1000	8004	25	1730
6005	10	1580	7005	75	815	8005	50	1220
6006	20	1140	7006	100	700	8006	100	865
6007	25	1000	7007	200	500	8007	200	612
6008	50	700	7008	250	447	8008	300	500
6009	75	550	7009	300	406	8009	400	424
6010	100	500	7010	400	350	8010	500	387
6011	200	350	7011	500	316	8011	750	316
6012	300	289	7012	750	258	8012	1000	274
6013	400	250	7013	800	250	8013	1500	223
6014	500	224	7014	1000	224	8014	2000	193
6015	750	182	7015	1500	183	8015	2500	173
6016	800	177	7016	2000	158	8016	3000	158
6017	1000	158	7017	2500	141	8017	4000	137
6018	1250	141	7018	3000	129	8018	5000	122
6019	1500	129	7019	4000	112	8019	6000	112
6020	2000	112	7020	5000	100	8020	7000	103
6021	2500	100	7021	6000	91	8021	7500	100
6022	3000	91	7022	7000	84	8022	10000	86
6023	3500	84	7023	7500	81	8023	15000	70
6024	4000	79	7024	8000	79	8024	20000	61
6025	5000	70	7025	9000	74	8025	25000	55
6026	6000	64	7026	10000	70	8026	30000	50
6027	7000	60	7027	12000	64	8027	40000	43
6028	8000	56	7028	15000	57	8028	50000	39
6029	10000	50	7029	20000	48	8029	60000	35
6030	15000	40	7030	25000	43	8030	80000	30
6031	20000	35	7031	30000	41	8031	100000	25
6032	25000	31	7032	40000	35			
			7033	50000	30			

100 WATT SIZE Type K-100 6 1/2" Long x 1 1/8" O.D. Mount. Centers 7 3/8"			160 WATT SIZE Type K-160 8 1/2" Long x 1 1/8" O.D. Mount. Centers 9 3/8"			200 WATT SIZE Type K-200 10 1/2" Long x 1 1/8" O.D. Mount. Centers 11 3/8"		
Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.
9001	5	4470	9030	5	5660	9060	5	6310
9002	10	3160	9031	10	4000	9061	10	4470
9003	25	2000	9032	25	2530	9062	25	2830
9004	50	1414	9033	50	1788	9063	50	2000
9005	100	1000	9034	100	1266	9064	100	1414
9006	250	630	9035	250	800	9065	250	890
9007	500	445	9036	500	566	9066	500	632
9008	1000	316	9037	1000	400	9067	1000	445
9009	1500	257	9038	1500	335	9068	2500	280
9010	2500	200	9039	2500	253	9069	5000	200
9011	5000	140	9040	5000	179	9070	10000	140
9012	10000	100	9041	10000	126	9071	15000	115
9013	15000	81	9042	15000	105	9072	20000	100
9014	20000	70	9043	20000	89	9073	25000	90
9015	25000	63	9044	25000	80	9074	30000	81
9016	30000	57	9045	30000	73	9075	40000	70
9017	40000	50	9046	40000	63	9076	50000	63
9018	50000	44	9047	50000	56	9077	75000	51
9019	75000	36	9048	75000	46	9078	100000	44
9020	100000	31	9049	100000	40			

BLUE RIBBON RESISTORS

Differ from tubular types. Wound on elliptical core. Aluminum bar through center insures even distribution of heat, avoiding hot spots. Gray enamel eliminates crazing which results in failure of resistive element due to moisture penetration from humidity, salt and other severe atmospheric conditions. Mounting studs—corrosion and rust resistant—peened to ends of thru-bar conduct heat to mounting surface. Stack 2 or more units. Method of fastening tube to thru-bar prevents loosening. Compared with tubular units of equivalent rating, these resistors offer: higher wattage rating per unit space requirement; needs less space; simple sturdy mounting; single or stacked; light weight; lower inductance. Designed for and made in accordance with MIL-R-26 specs.

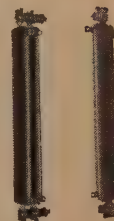


TABLE OF RATINGS

TYPE 1 1/4" B 30 Watt Rating * Mount. Centers 2"			TYPE 2" B 40 Watt Rating * Mount. Centers 2 3/4"			TYPE 3 1/2" B 55 Watt Rating * Mount. Centers 4 1/4"			TYPE 6" B 75 Watt Rating * Mount. Centers 6 1/2"		
Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.
B101	5	2450	B201	5	2830	B301	5	3320	B601	5	3880
B102	10	1730	B202	10	2000	B302	10	2350	B602	10	2750
B103	15	1410	B203	15	1640	B303	15	1920	B603	15	2240
B104	25	1090	B204	25	1260	B304	25	1480	B604	25	1730
B105	50	770	B205	50	890	B305	50	1050	B605	50	1220
B106	100	550	B206	100	630	B306	100	740	B606	100	860
B107	150	440	B207	150	510	B307	150	600	B607	150	710
B108	250	340	B208	250	400	B308	250	470	B608	250	550
B109	500	245	B209	500	283	B309	500	332	B609	500	388
B110	1000	173	B210	1000	200	B310	1000	235	B610	1000	275
B111	1500	141	B211	1500	164	B311	1500	192	B611	1500	224
B112	2500	109	B212	2500	126	B312	2500	148	B612	2500	173
B113	5000	77	B213	5000	89	B313	5000	105	B613	5000	122
B114	10000	55	B214	10000	63	B314	10000	74	B614	10000	86
			B215	15000	51	B315	15000	60	B615	15000	71
						B316	25000	47	B616	25000	55
									B617	50000	39

* This rating based on a maximum temperature rise of 300 degrees C. with the Resistor mounted horizontally on a 10" x 10" x .040" steel plate supported horizontally 1/2" above a wooden surface. When Resistors are mounted on a non-metallic base the nominal watt rating should be reduced by approximately 15%.

10 AND 20 WATT FIXED VITREOUS ENAMELED RESISTORS



Designed for radio service and replacement use—conservatively rated—wound upon Steatite Tube—combination lug and pigtail terminal connections. Vitreous enamel insulation, insures proof against moisture. 10 watt and 20 watt sizes, in the range of resistance values shown.

10 WATT 1 1/4" Long x 5/16" O.D.			20 WATT 2" Long x 1 1/2" O.D.		
Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.
A101	1	3160	A119	1500	81
A102	3	1825	A120	2000	70
A103	5	1415	A121	2500	63
A104	7.5	1150	A122	3000	58
A105	10	1000	A123	4000	50
A106	15	815	A124	5000	45
A107	25	630	A125	7500	36
A108	50	450	A126	10000	31
A109	75	365	A127	12500	16
A110	100	315	A128	15000	14
A111	150	260	A129	20000	12
A112	200	225	A130	25000	11
A113	250	200			
A114	400	158			
A115	500	142			
A116	750	115			
A117	1000	100			
A118	1250	89			
A201	5	2000	A219	4000	71
A202	10	1415	A220	5000	63
A203	25	895	A221	6000	57
A204	50	633	A222	7500	51
A205	75	517	A223	10000	44
A206	100	447	A224	12500	40
A207	150	375	A225	15000	37
A208	200	316	A226	25000	15
A209	250	282	A227	35000	13
A210	400	224	A228	40000	12
A211	500	200	A229	50000	11
A212	750	163			
A213	1000	141			
A214	1250	126			
A215	1500	115			
A216	2000	100			
A217	2500	89			
A218	3000	81			

ADJUSTABLE CONTACT BANDS

SCREW TYPE	Diameter of Resistor	Stock No.
BAKELITE TYPE KNOB	5/8"	1791-6
	1 1/8"	1793-4
	5/8"	1791-6-X
	1 1/8"	1793-4-X



HARDWICK-HINDLE INC.
NEWARK • NEW JERSEY

stripping

harness assembly

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PHALO CUSTOM INSULATION

"Quality all the way!"

PHALO Mold



Original "first of the kind" plugs, strain reliefs, harnesses, other insulations molded to your specifications

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TELEVISION CABLES

PHALO Tran

TRANSMISSION LINE CABLES

A few of many possible combinations of cables made to customers' specifications

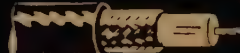


Coaxial solid "Copper-weld" conductor; low-loss polyethylene insulation; bare copper braid shield; vinyl plastic jacket RG-55/U type.

Coaxial Midget.



Solid bare copper conductor; low-loss polyethylene insulation; tinned copper braid shield; vinyl plastic jacket; RG-58/U type.



Coaxial-RG-11/U Type Stranded tinned copper conductor, Low-loss polyethylene insulation, Bare copper braid shield, Vinyl jacket.



Conductors in air space low-loss polyethylene tubes. Copper shield over tubes. Vinyl jacket.

PHALO X

CUSTOM-MADE CABLES



Four stranded tinned copper conductors, color-coded vinyl plastic insulation; one conductor has tinned copper shield and over-all vinyl plastic jacket; all four conductors cabled with jacketed conductor as core; cabled conductors covered with tinned copper shield, over-all vinyl plastic jacket.



Eight stranded tinned copper conductors, color-coded vinyl plastic insulation; with twisted pair as core, eight conductors are cabled and served, with vinyl plastic jacket; tinned copper shield and over-all vinyl plastic jacket. Two core conductors AWG 16, six AWG 22.



Ten stranded tinned copper conductors, color-coded vinyl plastic insulation; two conductors twisted, covered with tinned copper shield; ten conductors cabled and filled, with shielded pair as core; cabled conductors covered with tinned copper shield, over-all vinyl plastic jacket.

PHALO Com

INTERCOMMUNICATING AND SPECIAL CABLES



MICROPHONE CABLE • PHONOGRAPH PICK-UP ARM CABLE • PHOTOELECTRIC CELL CABLE • TWIN CABLE

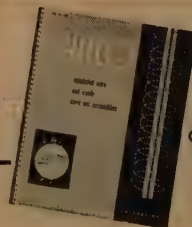
Braided and jacketed cables for general intercommunicating and public address system use. Many variations, incorporating other wire sizes, insulation types and thicknesses. Can be manufactured to your individual specifications.

PHALO Cord

CORD, CORD SETS & POWER SUPPLY CORDS



Power supply cord SJT with M-32 plug, one end slit and stripped.



Ask for complete Phalo Catalog Your Quality Guide!

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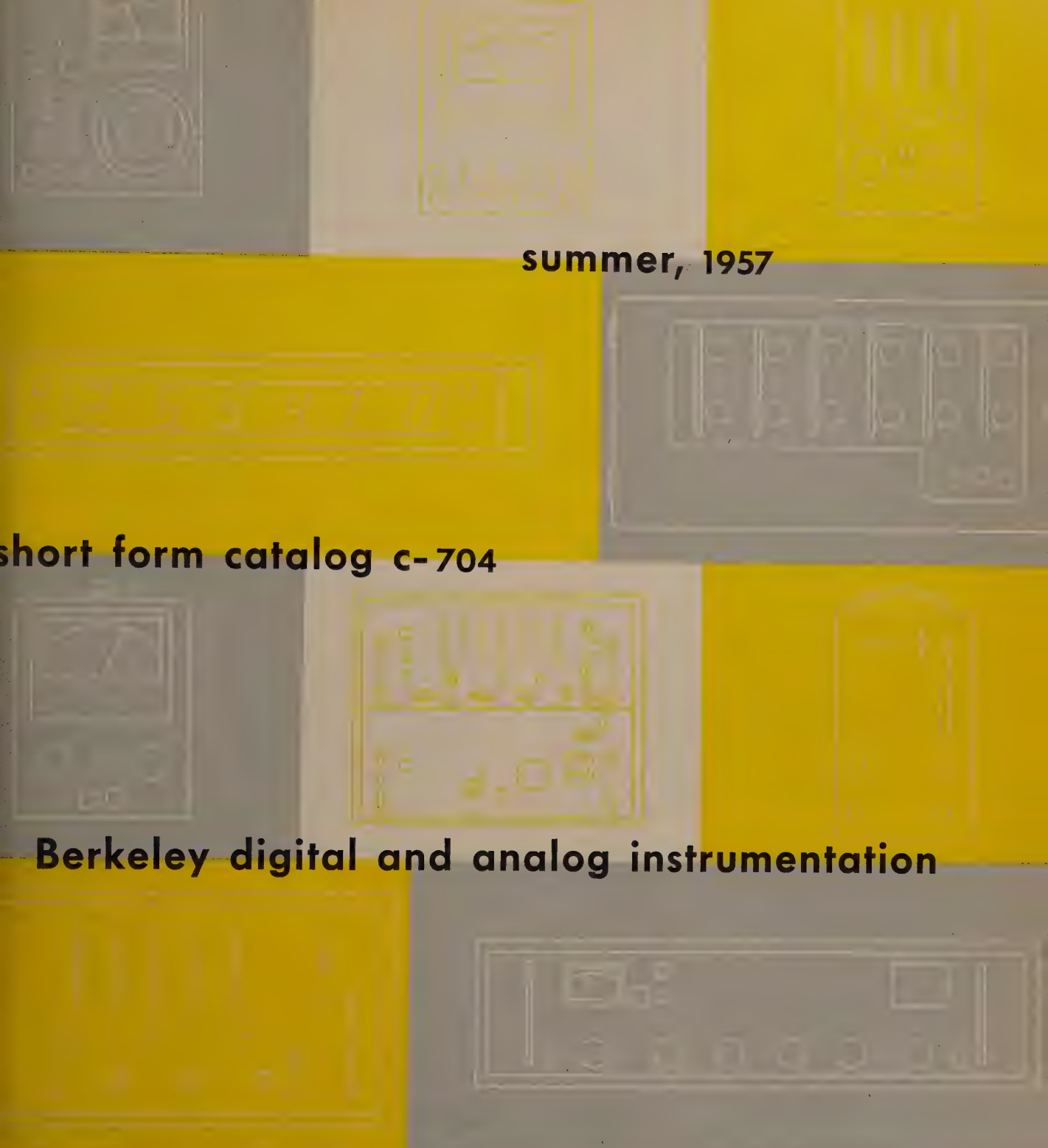
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PHALON Hook-Up, Lead & Fixture Wires

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summer, 1957

short form catalog c-704

Berkeley digital and analog instrumentation

COUNTING, TIMING, FREQUENCY MEASURING EQUIPMENT

- EPUT® Meters • Universal EPUT® Meters • Frequency Measuring Equipment • Preset Counter Controllers • Time Interval Meters • Electronic Counters • Nuclear Scalers and Count Rate Meters • Digital Recorders • Inline Readouts • Transducers • Decimal Counting Units

SPECIAL AND GENERAL PURPOSE TEST INSTRUMENTS

- Expanded Scale Volt Meters • Expanded Scale Frequency Meters • Resistance Bridges • Double Pulse Generators

EASE* ANALOG COMPUTERS AND EASE* PRECISION COMPONENTS FOR CONTROL SYSTEMS

*T.M.

Beckman®

Berkeley Division

A Division of Beckman Instruments, Inc.

2200 Wright Avenue, Richmond, California

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Beckman/Berkeley Division, now in its second decade, supplies industry and science throughout the world with two hundred types of electronic counting, control and computing equipment. An organization of highly skilled and experienced engineers, designers and production workers, Berkeley is equipped to mass produce a wide range of instruments for science and industry. Techniques for the mass production and assembly of high speed counters, timers and frequency measuring equipment originated at Berkeley.

Facilities at Berkeley are by no means limited to quantity production of standard type instruments. The Engineering Department conducts research development and product design operations in four major fields of electronic interest—counting,

timing, and frequency measuring equipment, analog computers, nuclear test instruments and special products.

Naturally this stress on research and development has resulted in important electronic "firsts" at Berkeley. Some of these include:

- The first 1,000,000 count per second events-per-unit-time meter (EPUT®)
- The original electronic decade unit (DCU)
- The first direct reading time interval meter for measuring time intervals to one microsecond.
- The first console style push-button analog computer (EASE*)
- The first direct reading frequency meter
- The first digital recorder with printed readout
- The first in-line, in-plane digital indicator
- The FERRISTOR*, miniature vacuum tube replacement

EPUT® meters

Berkeley EPUT® Meters automatically count and display the number of events that occur during a precise time interval. Events may be any physical occurrences that can be represented by changing voltages occurring either regularly or at random rates to 1,000,000 per second.



New Model 5210 100 KC EPUT® Meter for industrial and field application. Light, small, portable. Simple to operate. Straightforward design and construction. Reliable. The 5200 Series use same DCUs as other Berkeley equipment.



7000 Series units may be used to measure frequency or period, and also as high speed electronic counters with manual on-off control. Model 7160 shown.

APPLICATIONS

Precision tachometry; measurement of pressure, flow, temperature, viscosity, velocity, frequency, frequency period; process control or data reduction systems; calibration of frequency generating equipment; measurement of any electrical, mechanical, optical or other physical event occurring during a precise time interval.

BRIEF SPECIFICATIONS	Model 5210	Model 7150	Model 7151	Model 7160	Model 7161	Model 7650
Count Capacity:	4 digits	5 digits	5 digits	6 digits	6 digits	5 digits
Count Rate:	0 cps to 100 KC	0 cps to 100 KC	0 cps to 100 KC	0 cps to 1 mc	0 cps to 1 mc	0-40,000 cps
Time Bases: (decade steps)	0.1 and 1 sec	10 μ sec to 1 sec	Time Interval Generator	1 μ sec to 1 sec	Time Interval Generator	0.1 to 10 sec
Binary coded output to drive digital printer	optional \$30.00 extra	yes	yes	yes	yes	yes
Price:	\$475.00	\$775.00	\$1195.00	\$995.00	\$1345.00	\$1495.00



New Models 7151 and 7161 Preset EPUT® Meters feature a variable time base. Time base dividers have been replaced by preset DCUs. In addition to specifications below, these instruments feature several unique operating functions: Totalize — divides frequency between 0 and 10 KC by any number from 1 to 10,000; TIG — generates frequencies from 0.1 to 10⁴ milliseconds.



*T.M.

Model 7650 Long Life Magnetic EPUT® Meter performs the same function as models described above. Uses Berkeley FERRISTORS* in all critical circuits to assure continuous-duty reliability. Ideally suited to industrial test applications such as jet and piston-engine test cells, etc. Has digital "count-down" time base for precise gating; no adjustment of time base required.

These truly universal instruments combine high-speed electronic counting with a precision time base in multi-purpose circuitry. They function as counters, timers, time-interval meters, EPUT® meters, frequency, frequency ratio or period meters, or as secondary frequency standards.

APPLICATIONS

Counting, time interval, events-per-unit time measurements for precision tachometry; measurement of pressure, flow, frequency, velocity, viscosity, elasticity; timing relay, shutter action, etc. Measurement of unknown frequencies, frequency ratios, periods, etc.



New Model 5230 100 kc Universal EPUT® Meter for industrial and field application. Light, small, portable. Simple to operate. Straightforward design and construction. Reliable. The 5200 Series uses same DCUs as other Berkeley equipment.

BRIEF SPECIFICATIONS	Model 5230	Model 7350	Model 7351	Model 7360	Model 7361
Ranges-Frequency:	0 cps to 100 kc	0 cps to 100 kc	0 cps to 100 kc	0 cps to 1 mc	0 cps to 1 mc
Time Interval:	100 μ sec to 10 ⁴ sec	10 μ sec to 10 ⁶ sec	10 μ sec to 10 ² sec	1 μ sec to 10 ⁷ sec	10 μ sec to 10 ³ sec
Period:	0 cps to 10 kc	0 cps to 100 kc	0 cps to 10 kc	0 cps to 1 mc	0 cps to 10 kc
Time Bases:	0.1 and 1 sec	10 μ sec to 10 sec	Time Interval Generator	1 μ sec to 10 sec	Time Interval Generator
Binary coded output information for driving digital recorder	\$30.00 extra	yes	yes	yes	yes
Price:	\$575.00	\$945.00	\$1295.00	\$1245.00	\$1445.00



New Models 7351 and 7361 Preset Universal EPUT® Meters features are similar to Models 7150 and 7160 with variable time base feature, etc. In addition, TIM and A/B functions are offered.



Model 7360 Universal EPUT® and Timer.

Frequency Measuring Equipment

Basic instrument is the Model 5571, capable of measuring frequencies from 0 cps to 42 mc. Addition of the Model 5580 UHF-VHF converter and suitable plug-ins extends the range to 515 mc; Model 5582B VHF converter with plug-ins extends the range to 1,005 mc. Results are displayed in direct-reading digital form. Unit will drive a Model 1452 digital printer to provide a complete frequency logging system in which results are printed on standard adding machine tape. Model 5571 is also a Universal EPUT® Meter with same specifications as Model 7360.



Model 5571 with 5580 converter and 5580 series plug-ins for frequencies to 515 mc. Model 5571 price, \$1825. Model 5580 converter, \$300.00. 5581 series plug-ins, \$125.00 to \$175.00 each. All are FCC-approved. Model 5571 shown.



New Model 905 WWV receiver is most convenient, reliable method of utilizing standard time and frequency broadcasts from NBS stations WWV and WWVH. Features: covers all six WWV and WWVH frequencies, crystal controlled, separate crystal for each channel, built-in audio filters. Price: \$525.00 (Rack) \$550.00 (Cabinet).

Complete frequency logging system for frequencies to 1,000 mc. Model 5571 (with 5582B converter and plug-ins), drives Model 1452 digital printer to record results automatically on adding machine tape, 905 WWV receiver.





Time Interval Meters

Any event delineated by varying voltages may be timed. All models may be standardized against WWV or other external standards. Provisions are also made to measure period of input signals, use as a high-speed electronic counter, or frequency ratio meter.

APPLICATIONS

Timing of relays, shutters, solenoids, controls; ballistics research; measurement of viscosity, elasticity, velocity; accurate low frequency and period measurements, frequency ratio measurements, etc.

BRIEF SPECIFICATIONS	Model 5220	Model 7250	Model 7260
Range:	100 μ sec to 1 sec	10 μ sec to 1 sec	1 μ sec to 1 sec
Accuracy:	$\pm 100 \mu$ sec ± 1 part in 10^4	$\pm 10 \mu$ sec, ± 1 part in 10^5	$\pm 1 \mu$ sec, ± 1 part in 10^6
Input Requirements:	0.25v rms, 1 megohm dc-coupled.	0.1v rms, 10 megohms, ac or dc-coupled.	
Display Time:	Adjustable .05 to 5 sec.	Adjustable, 0.1 to 10 seconds (automatic reset). Manual reset also provided.	
Binary-coded output to drive Digital Printer	Optional \$30.00 extra	yes	yes
Price: (f.o.b. Factory)	\$475.00	\$595.00	\$830.00



New Model 5220 100 μ sec to 1 sec time interval meter for industrial and field applications.



Model 7250 Berkeley Time Interval Meters provide a direct digital reading of elapsed time between any two events, or the duration of a single event, in microsecond (Model 7260) or 10-microsecond increments.



Electronic Counters



Model 5001 (125 cps) industrial type electronic counter for use where speed requirements are in excess of the limitations on mechanical registers (10 cps).

BRIEF SPECIFICATIONS	Model 5001	Model 5010	Model 7050	Model 7060
Counting Rate:	0-125 cps	0-10,000 cps	0-100KC	0-1 mc
Sensitivity:	0.5 volts peak	0.5 volts peak	0.1 volts rms.	0.1 volts rms
Binary coded output to drive Digital Printer	no	no	yes	yes
Price:	\$195.00	\$330.00	\$545.00	\$645.00



The Berkeley Industrial Counter, Model 5010 (10 KC), is a highspeed electronic counting instrument designed to fill general counting needs, where speed requirements are greatly in excess of those possible with mechanical counters.



New Models 7050 (100 kc) and 7060 (1mc) gating counters offer both manual and electronic gating. Gate control signals may be of any frequency from d-c to maximum counting rate of the instrument with no input waveform restrictions. For use as frequency ratio meters, digital flow computers, slave EPUT® or time interval meters, high speed counters. Shown Model 7060.

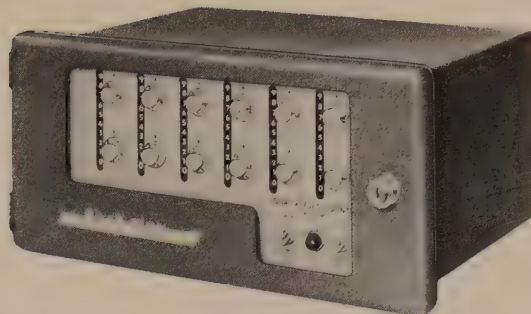
counts at rates to 40,000 cps, yields output signals at any desired preset total (or any two preset counts with dual preset models). Operates on input pulse of ± 1 volt peak, or more. Instantaneous reset to zero after final count. Reliable, simple to operate. Available in 2, 3, 4, 5, and 6-digit capacities. Long-life magnetic Model 540 dual preset features FERRISTOR* circuitry for continuous-duty reliability. Typical applications: coil winding, automatic packing, sorting to length, motor speed control.



Series 5840 long-life magnetic dual preset counter features FERRISTOR* circuitry; 4-digit, \$1115.00; 5-digit, \$1200.00; 6-digit, \$1295.00.

Series 5420 single preset models range in price from \$435.00 for 2-digit capacity to \$740.00 for 6-digit capacity. Dual preset Series 5440 range from \$650.00 (2-digit) to \$895.00 (6-digit).

Preset Counter-Controllers



Berkeley's long experience in counting techniques has been carried over to the nuclear field to produce a line of high quality scalars. Model 2025, basically a gated decimal counter, will count, store and record any phenomena occurring in a random fashion. Features automatic reset and start, uses DCUs instead of mechanical registers, and designed for use with an electronic timer (Model 811) for increased accuracy.

Nuclear Scalars



BRIEF SPECIFICATIONS

Model 2025

Input:	Pulse Height discriminator with range $+5$ to $+50$ volts
Scaling Circuit:	Paired Pulse Resolution: Better than $1 \mu\text{sec}$
Integral Amplifiers:	Input Sensitivity: 1 millivolt $\pm 20\%$
Controls:	Preset Count Selector — 100 to 4 million in 1-2-4 steps
Price:	\$950

BRIEF SPECIFICATIONS

Model 2101

Input Sensitivity:	0.25 volts
Resolving Time:	$5 \mu\text{seconds}$
Reset:	Reset of register and counting units by single lever
Timer:	Indicates and times automatically to closest second up to 60 min. Accuracy $\pm 0.2 \text{ sec}$
Price:	\$595.00

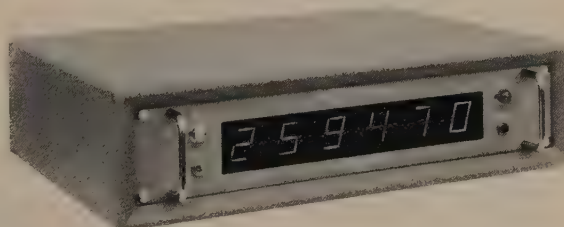


This scalar weighs only 24 pounds and offers maximum convenience for laboratory work and medical diagnosis. Can be used directly with G-M tubes and scintillation counters. Extremely reliable and simple to operate.

Digital Recorders, Inline Readouts & Transducers



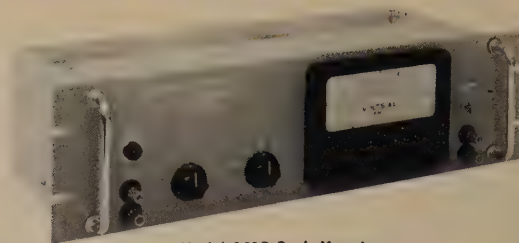
MODEL 1452 DIGITAL PRINTER. Automatically and permanently records information from any Berkeley 5510, 5571 or 7000 Series instrument, prints data in digital form on standard adding machine tape from printer and scanner in one compact unit. May be modified to print "Time" or "Code" information simultaneously with data. Rack or bench mounted; available in up to 8 digits. One printout every 0.85 seconds. Price (6-digit), \$950.00.



MODEL 5916 IN-LINE READOUT. Large, illuminated in-line IN-PLANE figures reduce fatigue and error. Ideal for remote observation of data. Connects directly to any Berkeley 5510, 5571 or 7000 Series instrument. Presentation rate up to 15 per second; accepts binary voltages. Price \$775.00.

TRANSDUCERS. A large number of transducers especially designed for use with Berkeley counting, timing, and frequency measuring equipment are available. These include tachometer, pickups, photocells, and light sources. Specifications and technical description on request.

Expanded Scale Voltmeter



Model 101R Rack Mount.

Model 101-50 expanded scale voltmeter. Featuring: $\pm 0.25\%$ accuracy, true rms reading, easy to read expanded scale, direct connection for 1 MA recorder.

Brief Specifications: Accuracy— $\pm 0.25\%$ of input voltage; Voltage Indicated—True rms; Voltage Range—100-500 (50-250v); Frequency Range —50-2,000 cps; Scale Range—12v (6v); Price: \$360.00 (rack mounted \$400.00).

Expanded Scale Frequency Meter

Expanded Scale Frequency Meters are designed for fast accurate monitoring of frequencies near 400 cps. They were originally intended for use in making production inspection measurements of the frequency regulation of motor and engine driven generating units, but many other applications where a record of frequency is desired have been found.



The Model 100 Transformation Ratio Meter is an RMS reading expanded scale voltmeter designed to read the primary and secondary voltages of synchros faster and easier than by conventional methods. The method of operation is ideally suited for production testing as well as for inspection of synchros and control transformers. Features: $\pm 0.2\%$ Accuracy; RMS Reading; Expanded Scale; Read Directly in % Deviation; Simple To Operate For Rapid Production Checks. Price \$400.00.

The Model 404 expanded scale frequency meter features Accuracy of $\pm \frac{1}{2}$ cycle, 1 MA Recorder Connection Provided; Expanded Scale for easy, error-free reading. Brief Specifications: Base Frequency—400 cps; Span— ± 25 cycles; Accuracy— $\pm \frac{1}{2}$ cycle; Price—\$330.00 (rack mount \$380.00).

Wide Range Resistance Bridge

The Model 605 wide range resistance bridge provides a means for rapidly and easily checking resistances to a high degree of accuracy. Seven ranges for full scale resistance values are selectable by front panel push button switches. Features: 5 ohms to 100 megohms, push button operation, high accuracy, negligible drift.



Brief Specifications: Resistance Scales—100, 1K, 10K, 100K, 1M, 10M, 100M, Full Scale; Accuracy— $\pm .15\%$ of resistance measured $\pm .05\%$ Full Scale; Drift—Negligible after 30 minute warm-up; Batteries—1.45 Volt, 2-7½ Volt; Price—\$170.00.

Berkeley Double Pulse Generators



Model 4904 Double Pulse Generator

Produce paired or single pulses. Pulse amplitude, width, polarity, repetition rate and pulse-to-pulse spacing are independently adjustable. Outputs may be mixed internally or externally. Model 903 can be driven externally by pulses; Model 4904 by pulses or sine wave generators.

BRIEF SPECIFICATIONS	Model 903	Model 4904
Pulse Width:	0.15 to 1.8 μ sec	0.3 to 10 μ sec
Rise Time:	0.035 μ sec	0.08 μ sec
Decay Time:	0.15 μ sec	0.26 μ sec
Pulse Spacing:	0 to 10 μ sec. Single control	0 to 100 μ sec. Coarse and fine adjustments
Price:	\$498.00	\$645.00

APPLICATIONS

Measurement of paired pulse resolution time of counting circuits. Measurement of rise time, decay time and transient response of pulse forming circuits, electronic switches, gates and wide band amplifiers. Calibration of input sensitivity of counting instruments. Frequency calibration of counting rate meters. Measurements of overload characteristics and dynamic range of pulse amplifiers. Delayed coincidence work.

New EASE* 1100 Series Analog Computers



The 1100 Series introduces a digital output-input translator system (DO/IT) that uses punched tape to set up and check problems, taking much of the human element out of computing and saving hours of operating time. Other new features include automatic static or dynamic problem checking, complete pushbutton monitoring system, and a fully shielded, color-coded patch board. Patch bay capacity 2188 to 3,600 terminals.

A typical setup would include:

- ★ 100 dc amplifiers
- ★ 16 servos
- ★ 300 DO/IT controlled attenuators
- ★ 30 electronic multipliers
- ★ 250 spare terminals
- ★ Required number of trunk lines and terminals for limiters, biases, etc.

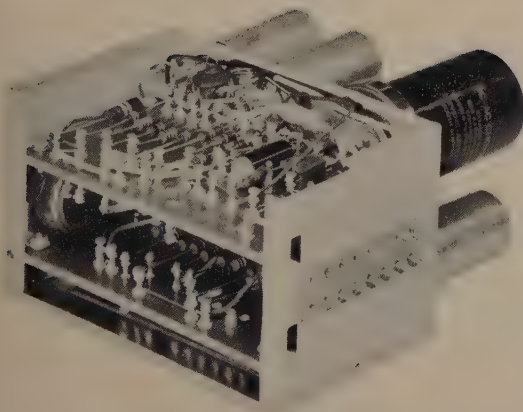
Computing resistors are maintained at an accuracy of better than .005% in a temperature controlled oven. Long-term accuracy of capacitors exceeds .05%. New servo-set potentiometer system permits adjustment of 50K Helipot precision potentiometers to an accuracy of better than 0.01% in less than 3 seconds average time.

EASE* Precision Components for Control Systems

Model 1191 General Purpose Servo Multiplier

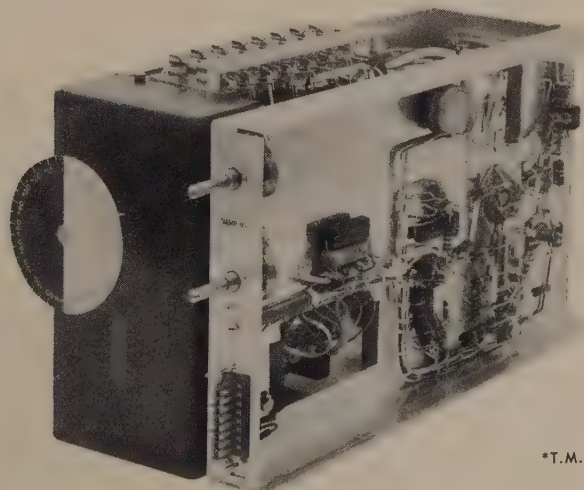
Up to five variables are multiplied by a sixth in the Model 1191 Servo Multiplier. One, two, or three of the five computing potentiometers can be supplied as sine-cosine resolvers. Amplifiers are removeable for ease of maintenance. The front panel contains servo gain and damping controls, as well as servo error light and a shaft position indicator.

No dither is employed, thus minimizing potentiometer wear. Selection of internal or external feedback reference is made through a relay. Servo Multipliers can also be supplied with such special features as a synchro or one extra potentiometer mounted on the potentiometer shaft, additional taps up to 33 total per potentiometer, and various non-linear resolvers.

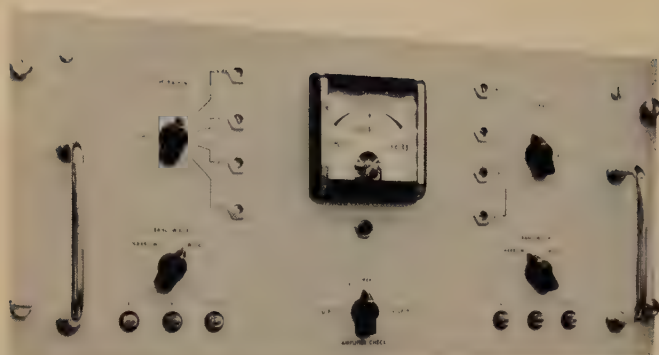


Model 1048B DC Amplifier

This new version of the Model 1048 amplifier, which has become a standard component for industry, features higher out-put current (better than 20 ma) and premium tubes with redesigned circuits for increased tube life.



*T.M.



Model 1157 High Accuracy Electronic Multiplier

Features .02% static accuracy on each of two independent products. Its chopper-stabilized amplifiers are available as inverters and its operation is switched by relay from multiplication to division. Two ranges are available—high accuracy, with a 10KC carrier, and wide band, with a 40KC carrier. This extends the usefulness of the multiplier well beyond the limitations imposed by a single compromise frequency carrier.

Specifications on other 1100 Series components and technical data on the complete computer are available on request. Prices on computer systems may be obtained by writing Sales Manager, Computer, Berkeley Division of Beckman Instruments, Inc., Richmond 3, California.

Customer Services From Beckman/Berkeley

Technical information on all instruments and applications data will gladly be supplied on request. There is no charge or obligation for this service. All literature is prepared by a staff of technical writers who work closely with Berkeley research and applications engineers. Recent literature includes:

Data File 110—FERRISTOR⁵, Their Use and Application
Data File 111—How to Make Frequency Measurements
Data File 112—How to Make Time Interval Measurements
Data File 10—How to Make WWV Measurements
Data File 123—Analog Computer Solutions for Feedback Control Systems

Beckman/Berkeley Representatives

Berkeley's world-wide staff of factory trained engineering representatives work closely with our sales office and the customer. They help the customer set up newly-purchased equipment, acquaint personnel with its operation and application, and make sure that it stays

in operating order. The representative's job is not completed until he has "followed-up" to insure that the customer receives maximum use from his instruments. These men will be glad to give you personal assistance at any time. A list of Berkeley representatives follows.

ALBANY, NEW YORK

Edward A. Ossmann & Associates
16 Cavens Lane
Phone: Union 9-7081

ALBUQUERQUE, NEW MEXICO

V. T. Rupp Co.
8009 Bellamah, N.E.
Phone: Albuquerque 9-4621

ATLANTA 9, GEORGIA

Murphy & Cota
2110 Peachtree St., N.W.
Phone: Trinity 6-300

BINGHAMTON, N. Y.

Edward A. Ossmann & Associates
147 Front St., Vestal, N. Y.
Phone: Endicott 5-0296

BOSTON, MASSACHUSETTS

Brager Instrument Sales Co.
48 Pearl St., Brookline, Mass.
Phone: Beacon 2-4804

CHARLOTTE, NORTH CAROLINA

Murphy & Cota
2036 Norton Rd.
Phone: Edison 2-7356

CHICAGO 39, ILLINOIS

Ridgeway Engineering Assoc.
6100 W. North Ave.
Phone: Tuxedo 9-5715

CLEVELAND 28, OHIO

J. R. Dannemiller Assoc.
3955 Lee Road
Phone: Longacre 1-4567

DALLAS 9, TEXAS

John A. Green Co.
6815 Oriole Drive
Phone: Fleetwood 2-9918

DAYTON 2, OHIO

J. R. Dannemiller Assoc.
384 W. First St.
Phone: Hemlock 0662

DENVER, COLORADO

F. Y. Gates Co.
4910 South Huron
Englewood, Colorado
Phone: Sunset 1-8566

DETROIT, MICHIGAN

J. R. Dannemiller Assoc.
1204 North Woodward
Royal Oak, Michigan
Phone: Lincoln 8-4440

HONOLULU 17, HAWAII

Gene Piety
2030 Home Rule St.
Phone: 8-3105

HOUSTON 6, TEXAS

John A. Green Co.
P.O. Box 6445
(Fairview Station)
Phone: Jackson 6-2959

INDIANAPOLIS 2, INDIANA

Ridgeway Engineering Assoc.
1606 N. Illinois St.
Phone: Walnut 5-6464

KANSAS CITY 14, MO.

Leemark Associates
706 E. 73rd St.
Phone: Jackson 3-9299

LOS ANGELES, CALIFORNIA

V. T. Rupp Co.
305 Parkman Ave.
Phone: Dunkirk 7-8224

ALBERTA & BRITISH COLUMBIA

Hawthorne Electronics
107 Administration Bldg.
Boeing Field, Seattle
Phone: Mohawk 3962

MIAMI 43, FLORIDA

Murphy & Cota
11375 S.W. 46th St.
Phone: Mohawk 5-1563

MINNEAPOLIS 3, MINNESOTA

Pinkney & Hine
1925 Nicollet Ave.
Phone: Federal 8-0523

NEW HAVEN 10, CONNECTICUT

Brager Instrument Sales Co., Inc.
42 Church Street
Phone: Spruce 7-6279

PHILADELPHIA, PENNSYLVANIA

Gawler-Knoop Co.
835 Glenside Ave., Wyncote, Pa.
Phone: Waverly 7-1820

PORTLAND 14, OREGON

Hawthorne Electronics
700 S. E. Hawthorne Blvd.
Phone: Belmont 4-9375

ROCHESTER 10, NEW YORK

Edward A. Ossmann & Assoc.
830 Linden Ave.
Phone: Hillside 5-0460

NEW YORK, NEW YORK

Gawler-Knoop Co.
178 Eagle Rock Ave., Roseland, N. J.
Phone: New Jersey, Caldwell 6-4545

ST. LOUIS 17, MISSOURI

Leemark Associates
1500 Big Bend Blvd.
Phone: Mission 7-1470

SALT LAKE CITY 1, UTAH

Gates Company
200 South Main St.,
Phone: Elgin 9-1101

SAN DIEGO 4, CALIFORNIA

V. T. Rupp Company
3948 Utah St.
Phone: Cypress 6-0483

SAN FRANCISCO, CALIFORNIA

Berkeley Division, Beckman Inst.
2200 Wright Ave., Richmond
Phone: Landscape 6-7730

SEATTLE, WASHINGTON

Hawthorne Electronics
107 Administration Bldg.
Boeing Field
Phone: Mohawk 3962

SYRACUSE, NEW YORK

Edward A. Ossmann & Associates
308 Merritt Ave.
Phone: Howard 9-3825

TULSA 1, OKLAHOMA

John A. Green Co.
P.O. Box 911

WASHINGTON, D. C.

Gawler-Knoop Co.
8726 Colesville Road,
Silver Spring, Md.
Phone: Juniper 5-7550

WINSTON-SALEM, NO. CAROLINA

Murphy & Cota
1102 Burke St.
Phone: 4-0750

CANADA

MONTREAL, QUEBEC

R-O-R Associates
6201 Cote St. Lue Road
Phone: Dexter 0845

TORONTO, ONTARIO

R-O-R Associates
1470 Don Mills Rd., Don Mills, Ontario
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creative papers from the mills of **MOSINEE**



Because they can be custom-designed with uniform, predictable resin absorbency, Mosinee papers permit careful control of resin impregnation processes. This quality minimizes machine adjustments, keeps production costs low, assures product effectiveness.

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low-cost papers replace expensive traditional materials

Offering a combination of economy and versatility, Mosinee creative papers are proving their worth throughout industry. These special sulphate papers are being used where paper was never before even considered. And they're performing as well or better than the more costly materials previously used.

With scientifically controlled processes, Mosinee can produce papers possessing an amazing variety of chemical and physical properties including high dielectric strength . . . mold, flame, water and corrosion resistance . . . resin holdout or absorbency. Especially important, Mosinee can quantity-produce these papers with dependable uniformity.

HERE ARE 6 GOOD REASONS FOR CALLING ON MOSINEE FOR YOUR SPECIAL SULPHATE PAPERS:

1. A proven record for creating outstanding custom-tailored papers
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3. Specially developed quality controls
4. Nearly 50 years of experience
5. Technical consultants in your area
6. Flexible production capacity

Chances are Mosinee may already have answers to fabricating, processing or packaging problems you are now working on! Mail the coupon below for more complete details.



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MOSINEE PAPER MILLS CO., Dept. EB-7, Mosinee, Wisconsin

Please furnish details on how you can create special papers to meet our needs.

NAME.....
FIRM.....
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ADDRESS.....
CITY..... ZONE..... STATE.....

When ordering or seeking information please mention Electronics Buyers' Guide.



Krohn-Hite

FIRST and still the ONLY

VARIABLE ELECTRONIC

FILTERS

0.02 to 20,000 cps



MODEL 330-A & 330-M

- **PROVEN TROUBLE-FREE OPERATION**
- **WIDE FREQUENCY RANGE**
- **ADJUSTABLE BAND WIDTH**

0.01 to 200,000 cps

THE MOST WIDELY SOLD ELECTRONIC FILTERS IN THE WORLD

Model	Type	Frequency Range	Frequency Accuracy	Noise & Hum	Power Consumption	Price
310-AB**	Band Pass	20 cps to 200 kc	10%	1 mv	40 watts	\$295.00
330-A**	Band Pass	.02 cps to 2 kc	5%	0.1 mv	50 watts	\$475.00
330-M**	Band Pass	0.2 cps to 20 kc	5%	0.1 mv	50 watts	\$475.00
340-A	Servo	.01 cps to 100 cps	5%	10 mv	40 watts	\$385.00
350-A**	Rejection	.02 cps to 2 kc	5%	0.1 mv	50 watts	\$475.00
360-A**	Rejection	20 cps to 200 kc	10%	5 mv	40 watts	\$295.00

**Available for rack mounting at \$5.00 additional.



POWER SUPPLIES

PROVEN UNSURPASSED PERFORMANCE

COMPARE

Krohn-Hite specifications with those of any of the existing 316 Power Supply Manufacturers.**

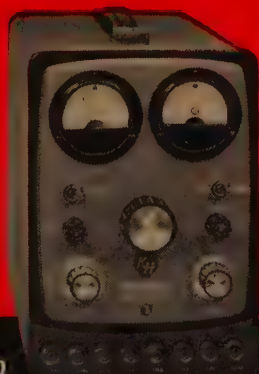
0.001% Load Regulation 0.1 Millivolts Ripple
0.005 Ohms Impedance 0.003% Line Stabilization

** As listed in the 1956 Electronics Buyers' Guide Pages D-132 to D-134



MODEL UHR-240

- *Featuring
- ULTRA-HIGH REGULATION**
- over the ENTIRE OPERATING RANGE**



MODEL UHR-220

Model	Voltage	Current	Impedance		Other Outputs		Price
			D.C.	A.C.	Bias	Heaters	
UHR-240*	0-500v	0-500ma	0.005 ohms	0.05 ohms	0-150v, 0-5ma	6.3v ac, 10a 6.3v ac, 10a 5-13v dc, 2.5a	\$625.00
UHR-245*	150-500v	0-500ma	0.01 ohms	0.05 ohms	—	6.3v ac, 10a 6.3v ac, 10a	\$425.00
UHR-220**	0-500v	0-200ma	0.01 ohms	0.1 ohms	0-150v, 0-5ma	6.3v ac, 5a 6.3v ac, 5a	\$390.00
UHR-230R	Dual Supply consisting of two Models UHR-220, Rack Mounted						\$790.00
UHR-225**	150-500v	0-200ma	0.02 ohms	0.1 ohms	—	6.3v ac, 5a 6.3v ac, 5a	\$275.00
UHR-235R	Dual Supply consisting of two Models UHR-225, Rack Mounted						\$560.00

*Available for rack mounting at \$5.00 additional. **Available for rack mounting at \$10.00 additional.

ALL PRICES F.O.B. PL



Krohn-Hite

FIRST and still the BEST

WIDE RANGE PUSH-BUTTON OSCILLATOR

.001 to 100,000 cps



MODEL 440-A

FREQUENCY RANGE OF 10^8
1% DISTORTION
CONTINUOUS FREQUENCY
COVERAGE

RC OSCILLATORS
TO MEET YOUR SPECIAL
REQUIREMENTS
0.001 to 520,000 cps

Model	Frequency Range	Frequency Accuracy	Output	Distortion	Power Consumption	Price
400-A	.009 cps to 1.1 kc	2%	25 mw/10v	1%	45 watts	\$375.00
400-C***	.009 cps to 1.1 kc	2%	100 mw/10v	1%	65 watts	\$395.00
410-A***	.02 cps to 20 kc	2%	10 mw/5v	1/10%	150 watts	\$1050.00
420-A	.35 cps to 52 kc	2%	25 mw/10v	1%	45 watts	\$315.00
420-C***	.35 cps to 52 kc	2%	100 mw/10v	1%	65 watts	\$345.00
430-AB**	4.5 cps to 520 kc	2%	50 mw/10v	1%	45 watts	\$145.00
440-A**	.001 cps to 100 kc	1%*	100 mw/10v	1/10%*	120 watts	\$550.00
440-B**	1 cps to 1 kc	1/20%*	100 mw/10v	1/10%	110 watts	\$950.00

All oscillators except 430-AB and 440-B have both sine wave and square wave outputs.

*Higher at end of range **Available for rack mounting at \$5.00 additional. ***Rack panel construction.



POWER AMPLIFIER

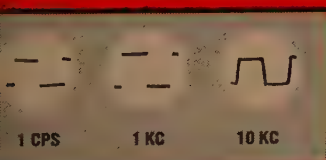
THE ULTIMATE IN POWER AMPLIFICATION
delivering 99.99999999%**
DISTORTION-FREE POWER



*Featuring

ULTRA-FIDELITY

MODEL UF-101



SQUARE WAVE RESPONSE

SPECIFICATIONS

POWER OUTPUT...50 watts from
15 cps to 30 kc
FEEDBACK.....80 db
FREQUENCY RESPONSE
±0.5 db from 0.5 cps to 30 kc
±3 db from 0.03 cps to 70 kc

DYNAMIC RANGE.....110 db
OUTPUT IMPEDANCE...2, 4, 8, 16
and 450 ohms
VOLTAGE GAIN...14 db or 30 db
to 16 ohm output
PRICE.....\$425.00

*Available for rack mounting at \$5.00 additional.

** Typical harmonic distortion at 1,000 cps is 0.003% in voltage or 0.00000009% in power at 50 watts.

FOR FREE CATALOG D



Krohn-Hite CORPORATION

580 MASSACHUSETTS AVE., CAMBRIDGE 39, MASS., U.S.A.

Superior makes the parts



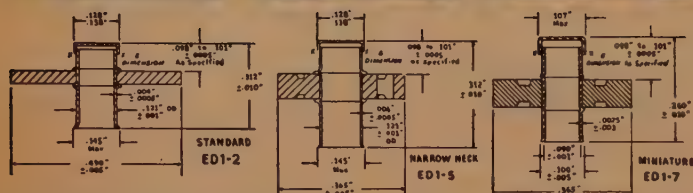
New tapered hole aperture mask—an actual photograph at 18X magnification.

NEW, TAPERED HOLE APERTURE MASKS¹

... for sharper, truer color TV

Here's a way to reduce beam diffusion, minimize false color and get better color TV pictures—in your present-design picture tubes.

Ideally, an aperture mask should have zero thickness. Electrons impinge on the walls of



Standard disc cathodes. (EDI-2) Most widely used cathodes in TV, radar test equipment, computer storage tubes and special beam type tubes.

Narrow neck disc cathodes. For 110° cathode ray tubes (EDI-5). Make possible shorter, narrower neck tubes and wider beam deflection angle. In growing use for portable TV.

Miniature disc cathodes. (EDI-6 and EDI-7) Save up to 50% heater power. Ideal for tri-gun color TV tubes. Make possible use of smaller deflection yokes and smaller cabinets.

DISC CATHODES

... three types, to cover all applications

In all Superior Tube disc cathodes, the critical "E" dimension (distance from top of ceramic to top of emission cap) is guaranteed accurate within $\pm .0005"$. Hence makers of TV picture tubes and other cathode ray tubes can save the time and cost of compensating for "E" dimension

THE CATHALOYS²

... cathode alloys free from sublimation and interface impedance

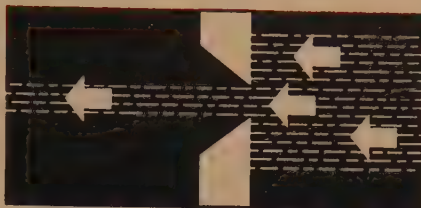


The Cathalloys are not only the world's most versatile cathode alloys, but they offer advantages not available in any other: high strength, high activity, or a combination of both plus low sublimation and freedom from interface impedance. In addition, they give electron tube manufacturers the assurance that they can produce tubes with new uniformity in performance characteristics. Even before being approved for production, each heat of a Cathaloy metal must be tested in an electron tube.

Of the five Cathalloys developed so far, A-32, the all-around active alloy and P-50, the all-around passive alloy, fill the vast majority of applications requirements. The others offer special advantages in countless applications. Principal characteristics are as follows:

that make electron tubes better

cylindrical holes, and are deflected out of the narrow beam. Instead of striking a single dot, they sometimes strike adjacent color dots. The result is a hazy picture or false color. But with these new Superior Tube tapered-hole aperture masks, beam diffusion is practically eliminated. The walls of the tapered holes lie outside the path of beam electrons—even at the extreme edges of the picture. The electrons see only the holes.



See how electron beam passes through hole without diffusion. There are nearly 500,000 of these holes in each mask—all controlled to close tolerance.



Notice how old cylindrical hole aperture mask can diffuse electron beam. Electrons striking aperture walls are scattered over several dots.

variations on the assembly line. Because of this close dimensional control, cathodes can be used universally in different tubes and are interchangeable with each other during electron gun assembly. Both manufacturing efficiency and quality control can be significantly improved.

In addition, Superior Tube precision disc cathodes offer these four important advantages:

1. *Separate cap alloy.* Permits the choice and use of best alloys for both cap and shank in varying applications.
2. *Slight flare of shank opening.* Easier insertion of heater. Less abrasion of heater coating during normal expansion and contraction.
3. *Shadow groove in ceramic.* Inhibits electrical leakage between cathode and No. 1 grid.
4. *Chemically clean shank interior.* Minimizes heater-cathode leakage.

Cathaloy A-32.³ Suitable for active alloy applications. Can be used for ruggedized tubes. Contains tungsten. Approximately 50% stronger than tungsten-free alloys.

Cathaloy P-50. Suitable for applications requiring a passive alloy. Available in Weldrawn² tubing. The only alloy commercially available in Weldrawn as well as Lockseam.⁴

Cathaloy A-31. Specially designed for extreme stress applications. Contains 4% tungsten. Approximately twice as strong at high temperatures as tungsten-free alloys.

Cathaloy A-30. An active alloy. Versatile, yet not as strong as A-32. A good material for entertainment-type tubes.

Cathaloy P-51. 100% stronger than Cathaloy P-50. Ideal for ruggedized tubes. Available in seamless, Weldrawn and Lockseam forms.

SPECIAL ALLOYS

Superior Tube is equipped also with melting facilities to supply on special order cathodes made from other alloys of specified composition. If you have a need for such cathodes, write for detailed information on this extra Superior Tube service.

SEND FOR NEW COMPLETE CATALOG

Superior Tube's new Catalog 51—recently revised and supplemented with the most up-to-the-minute facts on cathodes, disc cathodes, tubular parts and glass sealing alloys. Gives standard cathode dimensions and tolerances, complete chemical and physical data on materials. Tells how to order. Write Superior Tube Company, 2504 Germantown Ave., Norristown, Pa.

Superior Tube

The big name in small tubing

NORRISTOWN, PA.

Johnson & Hoffman Mfg. Corp., Mineola, N.Y.—an affiliated company making precision metal stampings and deep-drawn parts

¹Manufactured by Superior Tube Co., under license from Buckbee Mears Co., St. Paul, Minn.

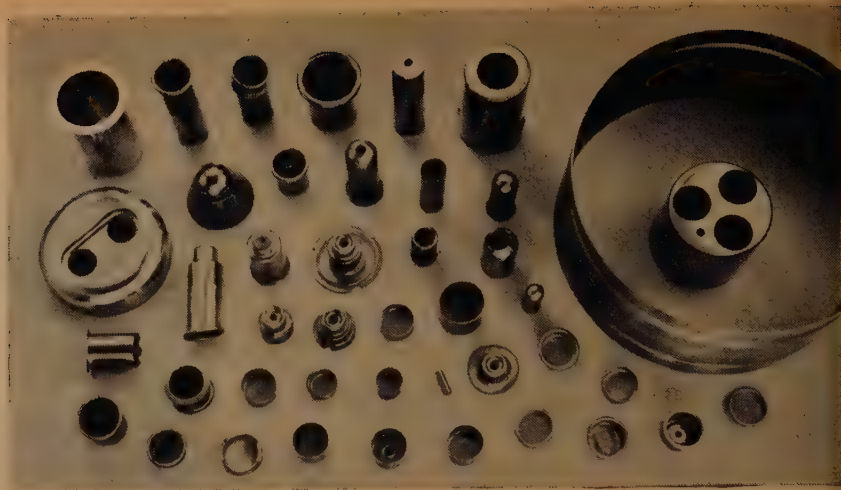
²T.M. Reg. U.S. Pat. Off., Superior Tube Co.

³Pat. Applied for.

⁴Manufactured under U.S. Patents.

DEEP-DRAWN PARTS

Parts made by drawing the metal into the desired shape. These parts include cups, eyelets, rings, flanges and grommets.



Precision Metal Stampings

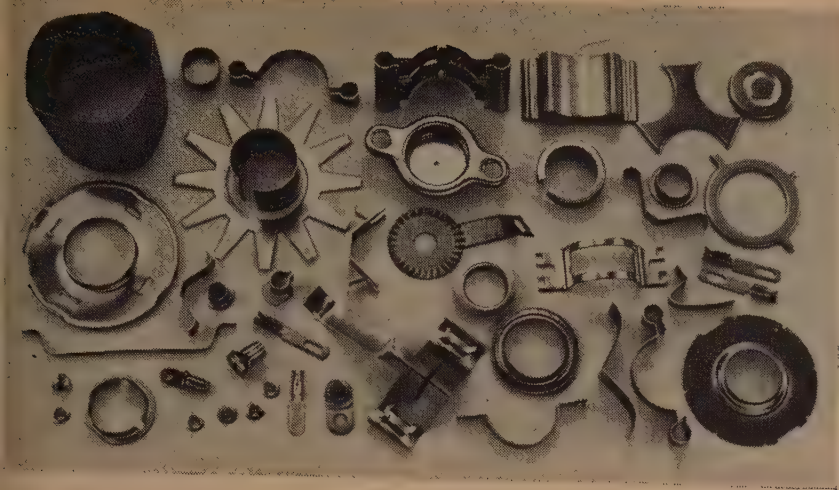


Untrimmed
or trimmed,
depending on
available
tooling.

TOOLING ON HAND FOR ROUND CUPS IN THESE SIZES

Save cost. Johnson & Hoffman can make round cups in these sizes from existing tooling, saving you the high cost of special dies. A small tooling charge may be necessary to accommodate different end shapes. These parts are available in low carbon steel, stainless steel, glass sealing alloys, nickel, aluminum, brass and titanium. When ordering, please specify material, wall thickness, diameter, length, and shape of open end.

OUTSIDE DIA.	HEIGHT	OUTSIDE DIA.	HEIGHT	OUTSIDE DIA.	HEIGHT	OUTSIDE DIA.	HEIGHT
.004 Mat'l (Wall)		.010 Mat'l (Wall)		.010 Mat'l (Wall)		.015 Mat'l (Wall)	
.284	$\frac{5}{32}$	1.000	$\frac{3}{8}$	.374	$\frac{9}{16}$	.608	$\frac{7}{16}$
.231	$\frac{3}{16}$	.988	$\frac{5}{8}$	.314	$\frac{5}{8}$	.575	$1\frac{1}{16}$
.198	$\frac{1}{4}$	.940	$1\frac{1}{4}$	.271	$\frac{5}{8}$	.552	$1\frac{1}{32}$
.170	$\frac{9}{32}$	.934	$\frac{7}{16}$			.529	$2\frac{1}{8}$
.150	$1\frac{1}{32}$	.900	$1\frac{11}{16}$	.012 Mat'l (Wall)		.485	$1\frac{1}{8}$
.135	$\frac{3}{8}$	.860	$1\frac{29}{32}$	.730	$1\frac{1}{16}$	.470	$\frac{5}{8}$
.121	$1\frac{1}{32}$	.795	$1\frac{9}{32}$	.585	1	.453	$\frac{1}{2}$
.007 Mat'l (Wall)		.790	1	.520	$1\frac{1}{16}$	.402	$\frac{3}{4}$
.703	$\frac{9}{32}$	.780	$\frac{3}{8}$			.373	$\frac{5}{8}$
.562	$\frac{3}{8}$	.770	$1\frac{1}{16}$	.015 Mat'l (Wall)		.030 Mat'l (Wall)	
.520	$\frac{1}{2}$	.752	$1\frac{3}{16}$	1.605	$1\frac{1}{16}$	2.170	1
.010 Mat'l (Wall)		.737	$2\frac{3}{32}$	1.225	$1\frac{1}{2}$	1.787	$1\frac{1}{4}$
1.310	$\frac{3}{4}$	.704	$\frac{7}{16}$	1.195	$\frac{7}{8}$	1.583	$1\frac{3}{8}$
1.210	$1\frac{1}{16}$	.658	$1\frac{1}{2}$	1.100	$1\frac{11}{16}$	1.498	$1\frac{1}{16}$
1.202	$\frac{7}{8}$	.632	$1\frac{1}{32}$	1.027	$\frac{3}{4}$	1.310	$\frac{1}{2}$
1.195	$1\frac{1}{16}$	.625	$\frac{5}{8}$	.950	$1\frac{1}{8}$	1.050	$\frac{5}{8}$
1.180	$1\frac{1}{16}$	.620	$\frac{1}{2}$	.935	$1\frac{1}{8}$	.926	$\frac{5}{16}$
1.050	$1\frac{5}{16}$	.600	$2\frac{9}{32}$	.920	$1\frac{1}{4}$	.859	$1\frac{1}{16}$
1.030	$1\frac{3}{16}$	.576	$1\frac{3}{8}$	.788	$1\frac{5}{16}$	.806	$\frac{7}{16}$
1.020	$1\frac{1}{16}$	.562	$\frac{9}{16}$	.750	$1\frac{1}{2}$	.795	$1\frac{1}{32}$
		.530	$1\frac{9}{32}$	.657	$1\frac{3}{4}$	.730	$1\frac{1}{16}$
		.520	$1\frac{3}{4}$	.615	$\frac{3}{8}$	.710	$\frac{1}{2}$
		.497	$1\frac{1}{16}$				
		.455	$\frac{7}{16}$				



at Low Cost

Johnson & Hoffman ingenuity can save you money while insuring product quality

The ability of Johnson & Hoffman to make precision metal stampings and deep-drawn parts at low cost is a result of its emphasis on creative engineering . . . ingenious design and tooling . . . combining two parts into one . . . or reducing the number of operations required to produce a given part.

Whatever your requirements, look to Johnson & Hoffman as your fast, reliable source of supply. We have an extensive line of standard designs and are equipped to develop new tooling for special parts you may need.



An affiliate of
Superior Tube Co.

J & H

JOHNSON & HOFFMAN

MANUFACTURING CORPORATION

31 East 2nd Street • Mineola, New York • Pioneer 2-3333

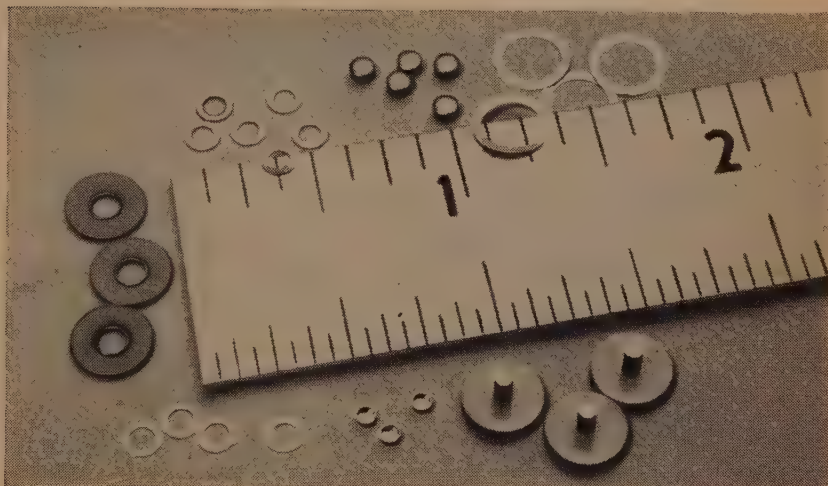
STAMPINGS

Parts made of flat strip which is bent or curved to the shape desired or cut to a particular shape. These machines can also perform embossing or drawing operations within certain limits.

MICRO-MINIATURE PARTS

A typical example is this group of parts made for use in the new General Electric 6BY4 ceramic electron tube.* These parts, with a maximum diameter of only $\frac{1}{4}$ in., are held within .0005 in. tolerance.

**Reproduced by permission of General Electric Co., Electronic Components Division.*



MATERIALS

Titanium, molybdenum, tungsten, stainless steel, brass, carbon steel, copper, aluminum, Berylco, * phosphor bronze, Inconel, † HC-4, 52 alloy, Kovar, ‡ nickel silver, silver, Rodar.§

FINISHES

Electropolished, tumbled, plated.

SIZE LIMITATIONS

Johnson & Hoffman has facilities to produce a wide variety of parts to exacting close tolerances. Deep-drawn parts, for example, can be supplied from strip metals from .003 to .060 in. thick in sizes up to

*T.M. Reg. U.S. Pat. Off., The Beryllium Corporation.

†T.M. Reg. U.S. Pat. Off., International Nickel Co.

‡Kovar is distributed by the Carborundum Co., Stupakoff Division, Latrobe, Pa., for Westinghouse Electric Corporation. Reg. U.S. T.M. No. 337,962, Westinghouse Electric Corporation.

§T.M. Reg. U.S. Pat. Off., Wilbur B. Driver Co.

2.75 in. OD and 3.75 in. in depth. These include plain or contoured cups, pierced or closed. Materials of other thicknesses can be used, depending on the contour of the part and the particular material. There is virtually no limit to the variety of stampings that can be produced. Complete information on these parts, plus micro-miniature parts, can be supplied on request.

WRITE FOR ESTIMATE

If you currently buy precision stampings or deep-drawn parts, ask Johnson & Hoffman for an estimate. Find out just how much you can save, while maintaining or possibly improving your product quality.

TUNE IN ON RADIO CONDENSER

For Variable Capacitors Tuners Electromechanical Assemblies

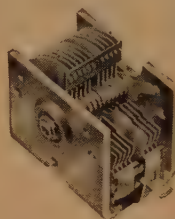
The experience of Radio Condenser in producing tuners and variable capacitors to individual requirements has consistently proved its value to manufacturers through the right combination of quality and cost. However unusual a problem may be, chances are that R/C specialists have faced a similar problem and solved it.

The products shown on this page are only a brief sampling of units designed, engineered, and manufactured by Radio Condenser. A more complete description of products in each category is given in our catalog, available on request. Or, we will be happy to arrange a direct interview with a Radio Condenser Engineer at your convenience.



STANDARD HOME RADIO TYPE CAPACITORS

R/C units cover every standard application, including AM-FM receivers. Each is a product of high quality, performance-proved, and well adapted to rapid, low cost quantity production.



CAPACITORS FOR LIMITED SPACE

Among the most recently announced R/C developments is a miniature variable capacitor for transistorized radio receivers, also adaptable to color TV phasing control. R/C accomplished important reductions in size with no sacrifice of stability or calibration accuracy.



MINIATURE AIR TRIMMER CAPACITORS

For every type of electronic equipment—printed wiring board or conventional chassis—Radio Condenser miniature trimmers permit more circuit in less space. All are equipped with plug-in tabs as well as two holes for screw mounting. Ruggedly constructed, the tiny trimmers also have excellent insulation resistance, "Q", and thermal stability.



AUTOMOTIVE RADIO TUNERS

Approximately one-third of all American automobiles are equipped with R/C tuners. Because every automobile radio tuner is an individual case, R/C custom manufacturing experience is an important asset to the radio manufacturer in this specialized field.



STANDARD CAPACITORS FOR SPECIAL APPLICATIONS

Always an important part of R/C activities, design and manufacture of variable capacitors of a special nature are handled by a special division. Products include units for every type of military service, test equipment, etc.



LOW COST MAGNETIC CLUTCHES

Originally designed by R/C to meet the rigid price-performance requirements of the automotive industry. Replace cumbersome mechanical assemblies to save space . . . cut costs . . . eliminate costly production steps. Two basic designs can be modified to meet individual volume requirements.



RADIO CONDENSER CO.

Davis & Copewood Streets • Camden 3, New Jersey

EXPORT: Radio Condenser Co., International Div., 15 Moore St., N.Y. 4, N.Y. CABLE: MINTHORNE

CANADA: Radio Condenser Co. Ltd., 6 Bermondsey Rd., Toronto, Ontario

For all power supply needs through 1.5 amperes

LAMBDA SPACE- COM-PAK® POWER SUPPLIES

THREE VOLTAGE RANGES: 0-200, 125-325, 325-525 VDC

1.5 AMPERE MODELS

NEW!

NEED ONLY **8 3/4"** OF PANEL HEIGHT!



MODEL C-1580M (with meters):	0-200 VDC, 0-1500 MA.....	580.00
MODEL C-1581M (with meters):	125-325 VDC, 0-1500 MA.....	605.00
MODEL C-1582M (with meters):	325-525 VDC, 0-1500 MA.....	680.00
MODEL C-1580:	0-200 VDC, 0-1500 MA.....	550.00
MODEL C-1581:	125-325 VDC, 0-1500 MA.....	575.00
MODEL C-1582:	325-525 VDC, 0-1500 MA.....	650.00

800 MA MODELS:

NEED ONLY **7"** OF PANEL HEIGHT!



MODEL C-880M (with meters):	0-200 VDC, 0-800 MA.....	370.00
MODEL C-881M (with meters):	125-325 VDC, 0-800 MA.....	345.00
MODEL C-882M (with meters):	325-525 VDC, 0-800 MA.....	390.00
MODEL C-880:	0-200 VDC, 0-800 MA.....	340.00
MODEL C-881:	125-325 VDC, 0-800 MA.....	315.00
MODEL C-882:	325-525 VDC, 0-800 MA.....	360.00

400 MA MODELS:

NEED ONLY **5 1/4"** OF PANEL HEIGHT!



MODEL C-480M (with meters):	0-200 VDC, 0-400 MA.....	289.50
MODEL C-481M (with meters):	125-325 VDC, 0-400 MA.....	274.50
MODEL C-482M (with meters):	325-525 VDC, 0-400 MA.....	289.50
MODEL C-480:	0-200 VDC, 0-400 MA.....	259.50
MODEL C-481:	125-325 VDC, 0-400 MA.....	244.50
MODEL C-482:	325-525 VDC, 0-400 MA.....	259.50

200 MA MODELS:

NEED ONLY **5 1/4"** OF PANEL HEIGHT!



MODEL C-280M (with meters):	0-200 VDC, 0-200 MA.....	214.50
MODEL C-281M (with meters):	125-325 VDC, 0-200 MA.....	189.50
MODEL C-282M (with meters):	325-525 VDC, 0-200 MA.....	199.50
MODEL C-280:	0-200 VDC, 0-200 MA.....	184.50
MODEL C-281:	125-325 VDC, 0-200 MA.....	159.50
MODEL C-282:	325-525 VDC, 0-200 MA.....	169.50



LAMBDA Electronics Corp.

11-11 131 STREET • COLLEGE POINT 56, NEW YORK

INDEPENDENCE 1-8500

Cable Address:

Lambdatron, New York

LAMBDA COM-PAK[®] POWER SUPPLIES

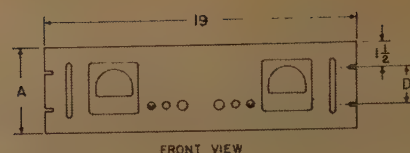
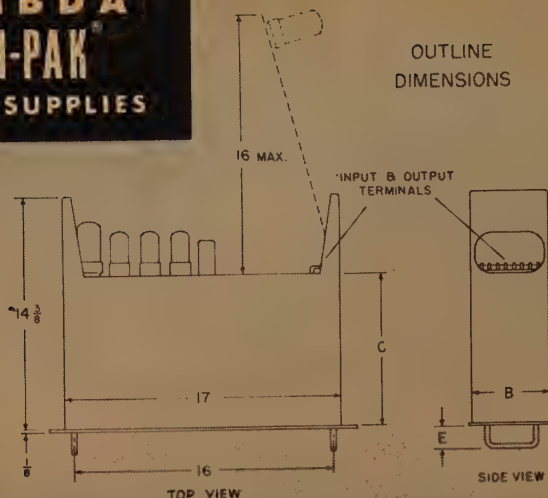


TABLE OF DIMENSIONS

MODEL*	A	B	C	D	E
C-280, C-281, C-282	5 1/4	4 13/16	9 1/2	2 1/4	1 3/8
C-480, C-481, C-482	5 1/4	4 13/16	9 7/8	2 1/4	1 3/8
C-880, C-881, C-882	7	6 9/16	9 7/8	4	1 9/16
C-1580, C-1581, C-1582	8 3/4	8 5/16	11 1/32	5 3/4	1 13/16

*ALSO INCLUDES METERED MODELS WITH SUFFIX "M", e.g. MODEL C-281M



COM-PAK SERIES... SPECIFICATIONS

DC OUTPUT (regulated for line and load):

Voltage and Current

Models	Voltage Range ¹	Current Range ²
C-280, C-280M	0-200 VDC	0-200 MA
C-281, C-281M	125-325 VDC	0-200 MA
C-282, C-282M	325-525 VDC	0-200 MA
C-480, C-480M	0-200 VDC	0-400 MA
C-481, C-481M	125-325 VDC	0-400 MA
C-482, C-482M	325-525 VDC	0-400 MA
C-880, C-880M	0-200 VDC	0-800 MA
C-881, C-881M	125-325 VDC	0-800 MA
C-882, C-882M	325-525 VDC	0-800 MA
C-1580, C-1580M	0-200 VDC	0-1500 MA
C-1581, C-1581M	125-325 VDC	0-1500 MA
C-1582, C-1582M	325-525 VDC	0-1500 MA

¹Voltage range for each model is completely covered in four continuously variable bands as follows:

Models	Voltage Bands
C-280, 480, 880, 1580	0-50, 50-100, 100-150, 150-200
C-281, 481, 881, 1581	125-175, 175-225, 225-275, 275-325
C-282, 482, 882, 1582	325-375, 375-425, 425-475, 475-525

²Current rating applies over entire voltage range.

Regulation (line) Better than 0.15% or 0.3 Volt (whichever is greater). For input variations from 105-125 VAC.

Regulation (load) Better than 0.25% or 0.5 Volt (whichever is greater). For load variations from 0 to full load.

Transient Response (line) Output voltage is constant within regulation specifications for step-function line voltage change of plus (+) 10 volts or minus (-) 10 volts rms within the limits of 105-125 VAC.

Transient Response (load) Output voltage is constant within regulation specifications for step-function load change from 0 to full load or full load to 0.

Internal Impedance
C-200 Series Less than 6 ohms.
C-400 Series Less than 3 ohms.
C-800 Series Less than 1.5 ohms.
C-1500 Series Less than 0.75 ohms.

Ripple and Noise Less than 3 millivolts rms.

Polarity Either positive or negative may be grounded.

AMBIENT TEMPERATURE

AND DUTY CYCLE Continuous duty at full load up to 50°C (122°F) ambient.

AC OUTPUT

(unregulated) 6.5 VAC (at 115 VAC Input).³

C-200 Series 10 AMP.

C-400 Series 15 AMP.

C-800 Series 20 AMP.

C-1500 Series 30 AMP.

³Allows for voltage drop in connecting leads. Isolated and ungrounded.

AC INPUT 105-125 VAC, 50-400 CPS

Models	Input Power ⁴	
C-280	300 Watts	C-880 670 Watts
C-281	330 Watts	C-881 850 Watts
C-282	390 Watts	C-882 1070 Watts
C-480	410 Watts	C-1580 1180 Watts
C-481	480 Watts	C-1581 1420 Watts
C-482	595 Watts	C-1582 1850 Watts

⁴With all outputs loaded to full ratings and input at 125 VAC.

OVERLOAD PROTECTION:

External Overload

Protection AC and DC fuses, front panel, with built-in blown-fuse indicators.

Internal Failure

Protection Fuse, rear of chassis.

INPUT AND OUTPUT CONNECTIONS

Heavy duty barrier terminal block, rear of chassis. 8 foot heavy duty rubber covered line cord with integral molded plug, also supplied.

METERS:

Output Voltage 3 1/2" rectangular voltmeter on metered models.

Output Current 3 1/2" rectangular milliammeter on metered models.

CONTROLS:

DC Output Controls Band-switches and screw-driver adjusting vernier-control, rear of chassis.

AC and DC Switches Front panel.

VOLTAGE REFERENCE A stable 5651 reference tube is used to obtain superior long-time voltage stability.

PHYSICAL DATA:

Mounting Standard 19" rack mounting.

Size:

C-200 Series	5 1/4" H x 19" W x 14 3/8" D.
C-400 Series	5 1/4" H x 19" W x 14 3/8" D.
C-800 Series	7" H x 19" W x 14 3/8" D.
C-1500 Series	8 3/4" H x 19" W x 14 3/8" D.

Weight:

C-200 Series	53 lb. Net 80 lb. Shipping Wt.
C-400 Series	53 lb. Net 80 lb. Shipping Wt.
C-800 Series	84 lb. Net 100 lb. Shipping Wt.
C-1500 Series	120 lb. Net 140 lb. Shipping Wt.

Panel Finish Black ripple enamel (standard). Special finishes available to customers' specifications at moderate surcharge.

*** LESS PANEL SPACE**

*** IMPROVED PERFORMANCE**

*** LONG, TROUBLE-FREE SERVICE**

LAMBDA
COM-PAK
POWER SUPPLIES

Lambda's COM-PAK series wins immediate and enthusiastic acceptance. Engineers welcome advanced thermal, mechanical design; praise economy of panel space.

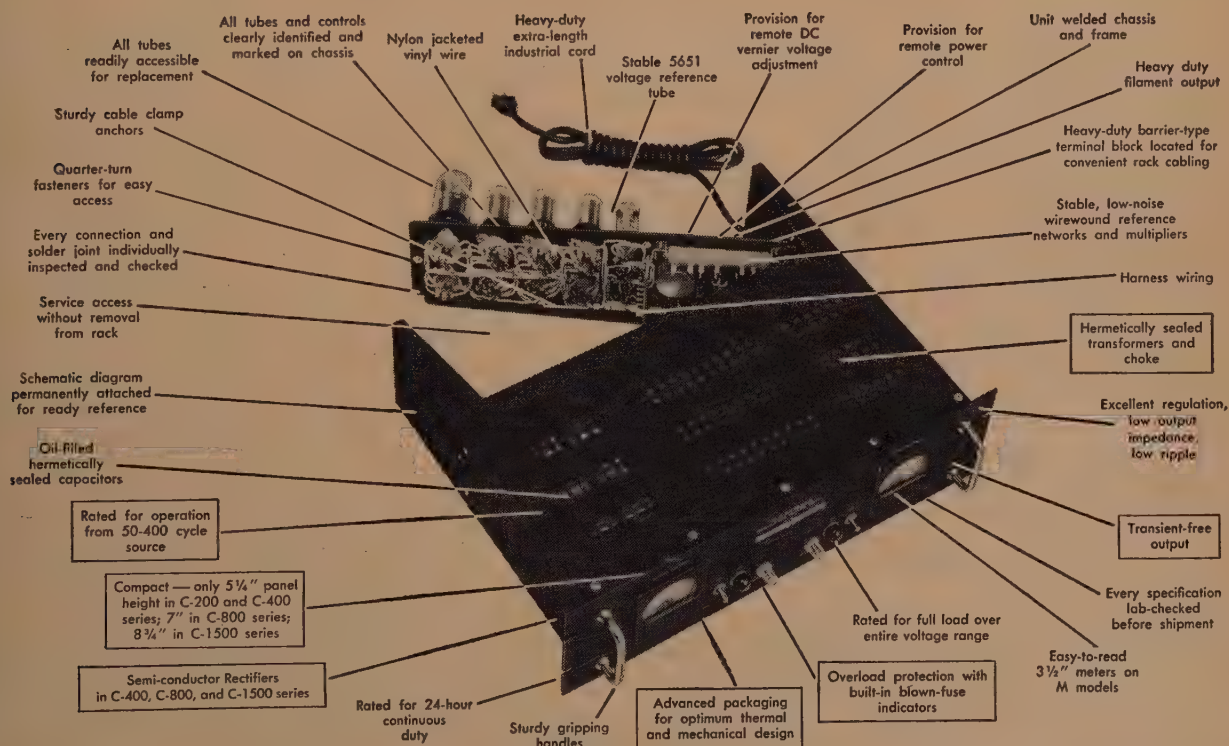
The new COM-PAK models fill the need for compact, regulated DC power supply units. You'll find their economy of panel space matched by their functional simplicity. You'll appreciate their quick-service features. All wiring, tubes and other components are readily accessible. You can reach them easily, service them fast.

All COM-PAK models are made with hermetically-

sealed transformers, chokes and capacitors. The 400 MA, 800 MA and 1.5 ampere models include new, high-efficiency, long-life, hermetically-sealed semi-conductor rectifiers.

Demand for COM-PAK power supplies is the greatest in our history. Place your order now for a better priority in shipment.

ONLY THE NEW **COM-PAK SERIES** INCLUDES ALL 31 OF THESE IMPORTANT DESIGN AND PERFORMANCE FEATURES



FAST IN-RACK SERVICING



Quick rear access to tubes and controls.



Rear panel swings open for servicing.

LAMBDA REGULATED POWER SUPPLIES including COM-PAK® series

Model	Style	Voltage Range (VDC)	Current Range (MA DC)	Regul'n Impedance Ripple (Table I)	6.3 VAC Output (Amps)	Meters *	Output Voltage Control	Output Terminals	Size Weight (Table II)	Price (U.S. and Canada) F.O.B. Factory College Pt., N.Y.
REGULATED POWER SUPPLIES—RACK MOUNTING										
28	Rack	200-325	0-100	A	3A	*	Rear	Rear	S-2	\$9.50
29	Rack	100-200	0-100	B	3A	*	Rear	Rear	S-2	69.50
32	Rack	200-325	0-300	C	2 @ 5A	*	Rear	Rear	S-3	139.50
33	Rack	100-200	0-300	C	2 @ 5A	*	Rear	Rear	S-3	154.50
50-R	Rack	0-500 0-50 0-200	0-500 Bias High Imped.	D E F	2 @ 5A	4 1/4" Rect	Front	Fr & rear	S-4	420.00
60	Rack	345-405	0-600	G	20A	*	Rear	Rear	S-5	274.50
61	Rack	295-355	0-600	G	20A	*	Rear	Rear	S-5	264.50
62	Rack	245-305	0-600	G	20A	*	Rear	Rear	S-5	254.50
63	Rack	195-255	0-600	G	20A	*	Rear	Rear	S-5	254.50
64	Rack	100-200	0-600	G	20A	*	Rear	Rear	S-5	259.50
65	Rack	0-100	50-600	G	20A	*	Rear	Rear	S-5	264.50
C-280	Rack	0-200	0-200	K	10A	*	Rear	Rear	S-9	184.50
C-281	Rack	125-325	0-200	K	10A	*	Rear	Rear	S-9	159.50
C-282	Rack	325-525	0-200	K	10A	*	Rear	Rear	S-9	169.50
C-480	Rack	0-200	0-400	L	15A	*	Rear	Rear	S-9	259.50
C-481	Rack	125-325	0-400	L	15A	*	Rear	Rear	S-9	244.50
C-482	Rack	325-525	0-400	L	15A	*	Rear	Rear	S-9	259.50
C-880	Rack	0-200	0-800	M	20A	*	Rear	Rear	S-10	340.00
C-881	Rack	125-325	0-800	M	20A	*	Rear	Rear	S-10	315.00
C-882	Rack	325-525	0-800	M	20A	*	Rear	Rear	S-10	360.00
C-1580	Rack	0-200	0-1500	N	30A	*	Rear	Rear	S-11	550.00
C-1581	Rack	125-325	0-1500	N	30A	*	Rear	Rear	S-11	575.00
C-1582	Rack	325-525	0-1500	N	30A	*	Rear	Rear	S-11	650.00
1500	Rack	0-400	0-1500**	P	2 @ 15A	*	Front Access	Rear	S-12	730.00
1510	Rack	0-125	0-1500**	P	2 @ 15A	*	Front Access	Rear	S-12	630.00
1511	Rack	25-150	0-1500**	P	2 @ 15A	*	Front Access	Rear	S-12	630.00
1512	Rack	50-175	0-1500**	P	2 @ 15A	*	Front Access	Rear	S-12	650.00
1513	Rack	75-200	0-1500**	P	2 @ 15A	*	Front Access	Rear	S-12	650.00
1514	Rack	100-225	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	670.00
1515	Rack	125-250	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	670.00
1516	Rack	150-275	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	690.00
1517	Rack	175-300	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	690.00
1518	Rack	200-325	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	690.00
1519	Rack	225-350	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	700.00
1520	Rack	250-375	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	700.00
1521	Rack	275-400	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	700.00
1530	Rack	0-50	100-1500	P	2 @ 15A	*	Front Access	Rear	S-12	590.00
1531	Rack	25-75	100-1500	P	2 @ 15A	*	Front Access	Rear	S-12	590.00
1532	Rack	50-100	100-1500	P	2 @ 15A	*	Front Access	Rear	S-12	600.00
1533	Rack	75-125	0-1500**	P	2 @ 15A	*	Front Access	Rear	S-12	600.00
1534	Rack	100-150	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	600.00
1535	Rack	125-175	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	620.00
1536	Rack	150-200	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	620.00
1537	Rack	175-225	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	640.00
1538	Rack	200-250	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	640.00
1539	Rack	225-275	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	660.00
1540	Rack	250-300	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	660.00
1541	Rack	275-325	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	660.00
1542	Rack	300-350	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	670.00
1543	Rack	325-375	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	670.00
1544	Rack	350-400	0-1500	P	2 @ 15A	*	Front Access	Rear	S-12	670.00
REGULATED POWER SUPPLIES—PORTABLE AND BENCH										
25	Bench	200-325	0-100	A	3A	None	Front	Front	S-1	69.50
26	Bench	100-200	0-100	B	3A	None	Front	Front	S-1	79.50
50	Bench					See Model 50-R above			S-7	440.00
71	Portable	0-50 0-50 0-200	0-200 Bias High Imped.	H I J	2 @ 5A	3 1/2" Rect	Front	Front	S-8	310.00

*For metered models (two 3 1/2" rectangular meters), add suffix "M" to model and add \$30 to base price. (For example, C-281M, \$189.50).
**Current rating of 0-1.5 amperes applies over entire voltage range except for voltages below 100 VDC where the rating of 0.1-1.5 amperes applies.

Sufficient tolerance is incorporated in the specifications to allow for normal commercial component and tube deviations. Tube replacement may be made with any equivalent tubes meeting RETMA specifications.

INPUT:

105-125 VAC, 50-60 CPS, single phase.
for Com-Pak series (models with pre-regulation)
105-125 V, 50-400 C.

DC OUTPUT:

Voltage Range: Continuously variable over the ranges specified, except where otherwise noted.
Current Range: The current ranges given are for the entire DC output voltage range, not just at input voltages from 105 to 125 VAC. No "derating" is necessary.
Polarity: Either positive or negative output may be grounded.

AC OUTPUT:

The AC output is unregulated, isolated and grounded. It has a value of slightly higher than 6.3 V (when fully loaded) at an input of 105-125 VAC. This value allows for voltage drop in connecting leads. Dual outputs may be connected in series or parallel.

DUTY CYCLE:

Continuous duty at full load.

METERS:

Where meters are indicated, a separate meter and milliammeter are provided.

OVERLOAD PROTECTION:

Ample protection is provided against external overload and internal failure conditions by means of fuses.
Circuit breakers of the magnetic, "trip" type are employed in Models 50, 50-R, and the "1500" series as protection against external overloads.

STYLE:

Rack Models are designed for mounting in standard 19" relay racks.
Bench Models are provided with compact, specially-designed, ventilated cabinets equipped with carrying handles. The power supply may be removed from their cabinets for mounting in standard relay racks (except Models 26 and 71).

RATINGS AND COMPONENTS:

All components used are of the highest quality and are operated well within manufacturer's ratings. Hermetically-sealed, oil-filled capacitors are used exclusively. Ample safety margins are provided in the design to insure long life, and the dependable, trouble-free operation so desirable in industrial and laboratory applications.

TABLE I DC OUTPUT VOLTAGE REGULATION, IMPEDANCE, RIPPLE

Line (105-125 VAC)	Load (min to max)	Internal Impedance (ohms)	Ripple, rms (millivolts or %)
Less than	Less than	Less than	Less than
A 1%	-1%	10	10 mv
B 1%	1%	10	5 mv
C 1%	1%	4	10 mv
D 0.15% or 0.1V	0.5% or 0.3V	2	8 mv
E 0.1%	unregulated	3,300	2 mv
F 0.1%	unregulated	17,500	5 mv
G 0.15% or 0.3V	0.25% or 0.3V	2	5 mv
H 0.15% or 0.3V	0.15% or 0.3V	4	5 mv
I 0.1%	unregulated	5,500	2 mv
J 0.1%	unregulated	25,000	5 mv
K 0.15% or 0.3V	0.25% or 0.5V	6	3 mv
L 0.15% or 0.3V	0.25% or 0.5V	3	3 mv
M 0.15% or 0.3V	0.25% or 0.5V	1.5	3 mv
N 0.15% or 0.3V	0.25% or 0.5V	0.75	3 mv
P 0.15% or 0.3V	0.15% or 0.3V	4	5 mv

TABLE II SIZES AND WEIGHTS

	Size H x W x D (inches)	Net (lbs)	Shipping (lbs)
S-1	8 x 14 x 6	19	23
S-2	5 1/4 x 19 x 8	19	23
S-3	10 1/2 x 19 x 9 1/4	42	52
S-4	10 1/2 x 19 x 14 1/4	89	140
S-5	12 1/4 x 19 x 9	70	110
S-7	12 1/2 x 22 x 15	110	158
S-8	13 x 8 3/4 x 14 1/2	49	85
S-9	5 1/4 x 19 x 14 1/4	53	80
S-10	7 x 19 x 14 1/4	84	100
S-11	8 3/4 x 19 x 14 1/4	120	140
S-12	12 1/4 x 19 x 16 1/2	175	225



**SEND FOR
NEW CATALOG 57.**

Complete specifications
for all Lambda
Power Supplies.



**LAMBDA
Electronics Co.**

The first name in power supplies

11-11 131 Street College Point 56, New York

INdependence 1-8500

MINIATURE INSTRUMENT BALL BEARINGS

STANDARD RETAINER BEARINGS

BORE	OUTSIDE DIAMETER	WIDTH	BEARING NUMBERS			RADIUS*	FIG. 2 & 4 ONLY		LAND DIAMETERS		BALLS NO. & SIZE	C RATING	
			FIG. 1 PLAIN BEARING	FIG. 2 FLANGED BEARING	FIG. 3 PLAIN BEARING SHIELDED**		FLANGED BEARING SHIELDED**	FLANGE DIA.	FLANGE THICK.	INNER			OUTER
+ .0000 - .0002	+ .0000 - .0002	+ .000 - .001						+ .000 - .001					
.040	.100	.0625	SRO	SERO	SROPP	.005	.203	.013	.083	.127	6 1/32	19	
	.105	.0837			SROPP			.031	.073	.139			
		.0781	SRT	SRTL			.005	.234	.023	.100	.162	6 1 mm	28
		.1094			SRTPP	SRTIPP			.031	.086	.173		
		.0837	SRL	SRL			.006	.296	.023	.134	.207	6 3/64	39
	.1406			SRL	SRL			.031	.112	.226			
.050	.110	.0625	SRL	SRL	SRL	.005	.234	.018	.118	.162	7 1/32	21	
	.115	.0837	SRL	SRL		.006	.359	.023	.159	.256		64	
		.1094	SRL	SRL					.031		.267		
		.1406		SRL	SRL	SRL	.005	.296	.023	.164	.220	8 1 mm	36
		.0837	SRL	SRL					.031	.154	.231		
	.1094			SRL	SRL	.006	.359	.023	.179	.275	6 1/16	66	
.060	.115	.1094	SRL	SRL		.006	.422	.023	.161	.286		66	
	.120	.1406		SRL	SRL			.031	.179	.275	6 1/16	66	
		.0837	SRL	SRL					.031	.161	.286		
		.1094		SRL	SRL	SRL	.012	.440	.030	.202	.298	7 1/16	73
		.1406		SRL	SRL				.181	.309			
	.115		SRL	SRL	SRL	.005	.359	.023	.215	.275	8 1 mm	35	
.080	.125	.1094	SRL	SRL	SRL	.005	.359	.036		.286		35	
	.130	.1250		SRL	SRL			.023	.215	.275	8 1 mm	35	
		.1094	SRL	SRL			.005	.359	.036	.215	.286		
		.1250		SRL	SRL	SRL	.008	.422	.023	.238	.322	8 1/16	82
		.1094	SRL	SRL					.031	.216	.333		
	.1250		SRL	SRL	SRL	.012	.565	.042	.265	.411	6 3/32	137	
.100	.140	.1406	SRL	SRL	SRL	.008	.422	.023	.281	.337	10 1 mm	44	
	.145	.160		SRL	SRL			.036	.310	.438		154	
		.1250	SRL	SRL			.010	.547	.045	.288	.449	7 3/32	154
		.1875		SRL	SRL	SRL	.012	.690	.042	.364	.513	8 3/32	170
		.140	SRL	SRL					.343	.524			
	.160		SRL	SRL	SRL	.009	.547	.031	.371	.444	12 3/64	60	

MINIATURE INSTRUMENT BALL BEARINGS

MICRO-BEARINGS

NEW HAMPSHIRE BALL BEARINGS, INC.
PETERBOROUGH NEW HAMPSHIRE

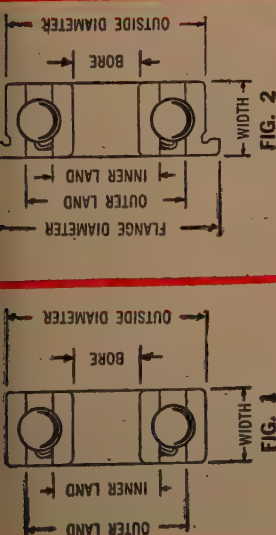


FIG. 2

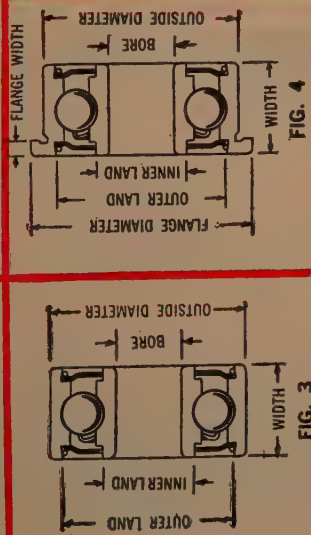


FIG. 4

NOTES

*RADIUS shown is maximum size of shaft or housing fillet that bearing will clear. **For single shield (Figures 3 and 4) use the following suffixes in place of PP: Figure 3, suffix P — Shield on flanged side. Figure 4, suffix P2 — Shield on side opposite flange. In all cases, the following should be specified: 1. Radial Play (see our catalog). 2. Lubrication (see our catalog). The following should be specified only if they are essential to the application: 3. Coding (see our catalog). 4. ABEC 7 tolerances (see our catalog). 5. Other special specifications should be checked with the Plant before ordering.

HOW TO ORDER

Use bearing numbers shown. For single shield (Figures 3 and 4) use the following suffixes in place of PP: Figure 3, suffix P — Shield on flanged side. Figure 4, suffix P2 — Shield on side opposite flange.

In all cases, the following should be specified: 1. Radial Play (see our catalog). 2. Lubrication (see our catalog). The following should be specified only if they are essential to the application: 3. Coding (see our catalog). 4. ABEC 7 tolerances (see our catalog). 5. Other special specifications should be checked with the Plant before ordering.

SEND FOR FREE CATALOG
Get this complete, authoritative technical manual and data book on Micro-Bearings. Includes helpful design article: "Factors To Consider In Selecting Small Instrument Ball Bearings."

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MEASUREMENTS CORPORATION



Laboratory Standards



MODEL 80
STANDARD SIGNAL GENERATOR



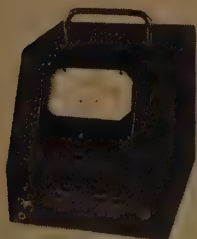
MODEL 95
STANDARD SIGNAL GENERATOR



MODEL 210-A
FM STANDARD SIGNAL GENERATOR



MODEL 71
SQUARE WAVE GENERATOR



MODEL 67
PEAK-TO-PEAK VOLTMETER

STANDARD SIGNAL GENERATORS

MODEL	FREQUENCY RANGE
65-B	75 Kc to 30 Mc
80	2 Mc to 400 Mc
80-R	5 Mc to 475 Mc
82	20 Cycles to 200 Kc 80 Kc to 50 Mc
84-R	300 Mc to 1000 Mc
84-TVR	400 Mc to 1000 Mc
95	50 Mc to 400 Mc
210-A	86 Mc to 108 Mc

SQUARE WAVE GENERATOR

MODEL	FREQUENCY RANGE
71	6 to 100,000 Cycles Continuously variable

PULSE GENERATOR

MODEL	FREQUENCY RANGE
79-B	60 to 100,000 pulses per second

VHF FIELD STRENGTH METER

MODEL	FREQUENCY RANGE
58-AS	15 Mc to 150 Mc

HIGH FREQUENCY BARRETTTER

MODEL	FREQUENCY RANGE
202-C	2 Mc to 1000 Mc

VACUUM TUBE VOLTMETERS

MODEL	FREQUENCY RANGE
62	30 cps to over 150 Mc
67	5 to 100,000 sine-wave cps.

MEGACYCLE "GRID-DIP" METERS

MODEL	FREQUENCY RANGE
59 LF	0.1 Mc to 4.5 Mc
59	2.2 Mc to 420 Mc
59 UHF	420 Mc to 940 Mc

CRYSTAL CALIBRATORS

MODEL	FREQUENCY RANGE
111	250 Kc to 1000 Mc
111-B	100 Kc to 1000 Mc



MODEL 59
MEGACYCLE "GRID-DIP" METER



MODEL 111
CRYSTAL CALIBRATOR

STANDARD TEST SET for TRANSISTORS



MODEL 505

Tests PNP and NPN small-signal, medium-power and switching transistors.

Checks for short-circuited emitter-collector junctions.

Measures collector-to-emitter leakage current.

Measures collector current and d-c gain.

Case Dimensions: 10" high x 14" wide x 7 1/4" deep.

Power Supply: Two F4BP 6-volt dry batteries.

Weight: Approximately 9 pounds without batteries.

MEASUREMENTS CORPORATION

BOONTON • NEW JERSEY

Tuning Fork Controlled



Tuning Fork Resonators, the ultimate in precision audio frequency control.

PHONE OR WRITE

for complete information regarding component type Tuning Fork Resonators, and variously packaged Frequency Standards, Oscillators, Drivers, and Frequency Dividers.

PHILAMON LABORATORIES INC.

90 Hopper Street, Westbury, Long Island, N. Y. EDgewood 3-1700

For a continuously adjustable output voltage from a-c power lines



TYPE 10
INPUT: 120 volts, 60 cycle, 1 phase.
OUTPUT: 0-120/132 volts, 1.25 amperes, .165 KVA for Back-of-Panel



TYPE 2PF10
INPUT: 120 volts, 60 cycle, 1 phase. OUTPUT: 0-132 volts, 1.0 amperes, .132 KVA

POWER

VARIABLE TRANSFORMERS

Standard types meet the most unusual conditions

The most extensive line of variable transformers is POWERSTAT. And now a complete standard line of POWERSTATS for high frequency use is offered in addition to the innumerable standard air-cooled types for manually-operated or motor-driven duty . . . oil-cooled models . . . and explosion-proof units. You'll find 120, 240 and 480 volt, single phase and 3-phase models. They all provide excellent regulation with high efficiency. Their conservative ratings and rugged construction assure precise plus long, dependable service. Look to POWERSTAT for the complete line of variable transformers of the highest quality.



TYPE 136
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-120/140 volts, 20.0 amperes, 2.8 KVA. Exposed Terminal Connections.



TYPE 0-1126
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-140 volts, 30 amperes, 4.2 KVA. For Oil-Cooled Operation.



TYPE X-1126
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-140 volts, 12 amp., 1.7 KVA. Explosion-Proof for Hazardous Locations.



TYPE 10-1002
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-120 volt, 1.25 amp., .15 KVA. Complete Rotation.



TYPE 2106LC
INPUT: 95-135 volts, 50/60 cycle, 1 phase. OUTPUT: 115 volts, 52 amperes, 6.0 KVA. Limited Output Range or a Line Corrector.

New, Standard Line for HIGH FREQUENCY Applications

One-third the weight . . . one-half the size of 60 cycle units, these POWERSTATS are ideal for ship, aircraft, guided missile and other 400/800 cycle applications. Here are some of the new models. There are many others. We will be glad to develop special units to meet your special needs.



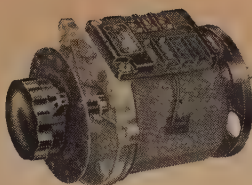
HS SERIES

For 400/800 cycle, single phase use. Units for 28 and 120 volt service. The 120 volt types can be connected for 0-120 or 0-140 volts output. Reduced voltage types have a double winding and operate from 120 volts to deliver an output of 0-28 volts. A fixed tap provides a non-adjustable 28 volt supply.

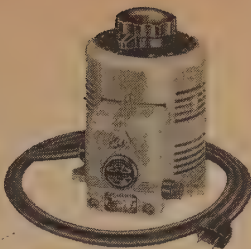
Precision products of



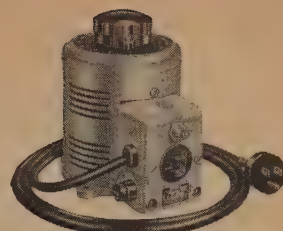
TYPE 20
INPUT: 120 volts, 60 cycle, 1 phase. OUTPUT: 0-120/140 volts, 7.5 amperes, .42 KVA for Back-of-Panel.



TYPE 116U
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-120/140 volts, 7.5 amperes, 1 KVA for Back-of-Panel.

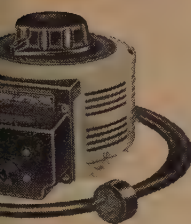


TYPE 116
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-140 volts, 7.5 amp., 1 KVA. Enclosed with Cord-Plug, Receptacle, Fuse, Switch.



TYPE 3PN116
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-140 volts, 7.5 amperes, 1 KVA. Third Wire Grounded.

STAT[®]



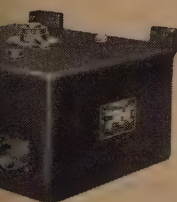
TYPE 2PF136
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-120/140 volts, 20.0 amperes, 2.8 KVA. Enclosed with Cord-Plug, Fuse, Receptacle.



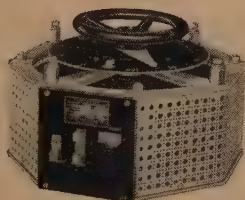
TYPE LW136 (and LW136-3)
Double wound assembly with isolated secondary. One phase 120 or 240 volt input. Three uses: (1) One phase 120 or 240 volt input; 3-phase 240 or 480 volt input; low voltage isolated output. (2) 120 or 240 volt 1-phase, or 240 or 480 volt 3-phase line corrector. (3) 120 or 240 volt, 1-phase, or 240 or 480 volt, 3-phase limited range "buck-boost" variable transformer.



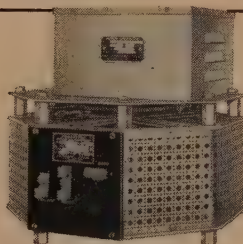
TYPE 15M136-3Y
INPUT: 240 volts, 60 cycle, 3 phase. OUTPUT: 0-240/280 volts, 20 amperes, 9.7 KVA. Motor-Driven for Remote Control.



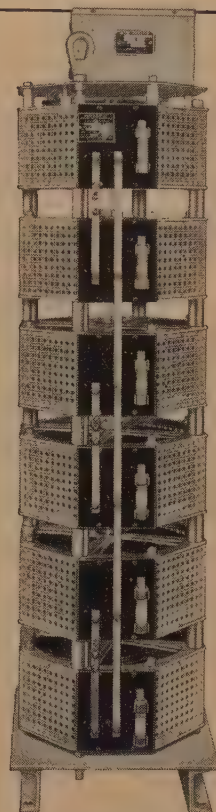
TYPE 1126-1001
INPUT: 115 volts, 400/800 cycle, 1 phase. OUTPUT: 0-130 volts, 20 amperes, 1.95 KVA. With a Proof Container.



TYPE 1156
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-140 volts, 45 amperes, 6.3 KVA. For Heavy Duty.



TYPE MZ1156
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-140 volts, 45 amperes, 6.3 KVA. Motor-Driven for Remote Control.

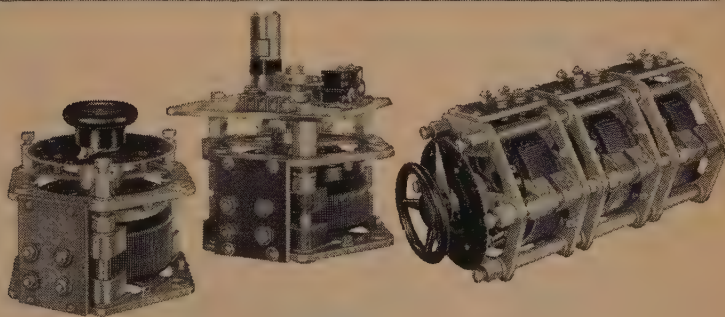


TYPE MW1156-6Y
INPUT: 240 volts, 60 cycle, 3 phase. OUTPUT: 0-280 volts, 90 amperes, 43.6 KVA. Motor-Driven for Easy Operation.



HM SERIES

For 400/800 cycle, single and 3-phase use. Units for 120 and 240 volts, 1-phase . . . 240 and 480 volts 3-phase use. All units with terminal connections to provide output voltages limited to input voltages . . . or output voltages higher than input voltages.



HL SERIES

For 400/800 cycle, single and 3-phase use. Manually-operated and motor-driven models. Units for 120 and 240 volt service. Three phase models are wye connected to operate from 240 or 480 volt lines. Input terminals provide choice equal to or 17% higher than line voltage.

THE **SUPERIOR ELECTRIC COMPANY**
5000B Bradley Ave., Bristol, Connecticut



*For a constant
output voltage
from a-c power lines*

**3 TYPES
TO SUIT
INDIVIDUAL
APPLICATIONS**

STABI

Automatic **VOLTAGE REGULATORS**

**MODELS OF
EACH TYPE
FOR HIGH
FREQUENCY
APPLICATIONS**

Have you a *special* voltage regulation requirement? Chances are it can be handled by a *standard* STABILINE. Look at the range of characteristics shown here. STABILINES maintain a constant output voltage regardless of line or load changes. Type IE is completely electronic without moving parts; Type EM corrects faster than most regulators and maintains constant voltage to large loads without waveform distortion; Type TM is without tubes, transistors, or moving parts.



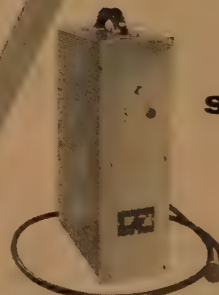
Temperature Limited DIODE type 1236C

characteristics

	AVERAGE	MAXIMUM
CATHODE (Tungsten)		
VOLTAGE	1.9 volts a-c or d-c	2.3 volts a-c or d-c
CURRENT	440 MA	520 MA
PLATE		
VOLTAGE	600 volts d-c	700 volts d-c
CURRENT	0.7 MA d-c	1.0 MA d-c

Applications:

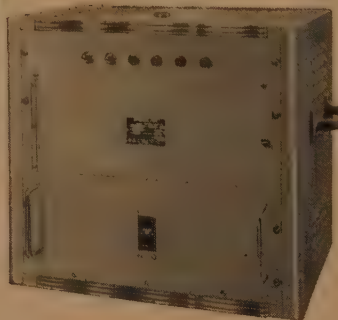
RMS detector for differential volt
meters
RMS detector for a-c voltage and
current stabilizers
Detector for d-c voltage and
current stabilizers



TYPE IE51002

INPUT: 95-135 volts, 60 cycle, 1 phase.
OUTPUT: 115 volts, 2.2 amperes, .25 KVA.
Completely Electronic, Portable with Cord-
Plug, Receptacle.

**OTHER
STANDARD TYPES
TO FULFILL
THE MOST
EXACTING
REQUIREMENTS**



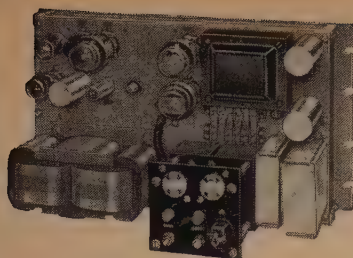
TYPE EMD4208

Two Type EM units with individual control and power circuits in one cabinet. One phase, 2 or 3 wire, 120 or 240/120 volt, 45-66 cycle service. Output from 2.1 to 8.4 KVA depending on input connections.

TYPE EMD4208S

Same as Type EMD4208 except with common control . . . added 240 volt service . . . and output from 4.2 to 16.8 KVA depending on input connections.

Precision products of



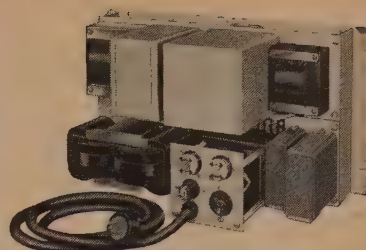
TYPE IE5101R

INPUT: 95-135 volts, 60 cycle, 1 phase. OUTPUT: 115 volts, 8.5 amperes, 1.0 KVA. Instantaneous Electronic. No Moving Parts.



TYPE EM4102R

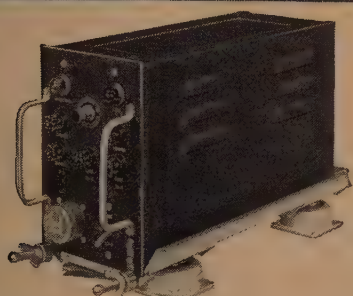
INPUT: 95-135 volts, 50/60 cycle, 1 phase. OUTPUT: 115 volts, 17.5 amperes, 2.0 KVA. Electro-Mechanical with zero waveform distortion.



TYPE TM7101R

INPUT: 95-135 volts, 60 cycle, 1 phase. OUTPUT: 115 volts, 1.0 KVA. Tubeless Magnetic without Transistors, Tubes or Moving Parts. TYPE TM7105 the same characteristics except 5.0 KVA output.

LINE®



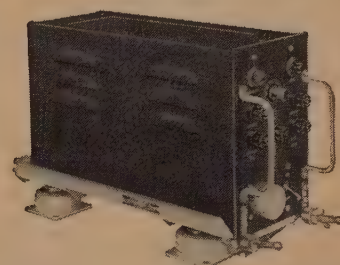
TYPE IEH5101

INPUT: 95-130 volts, 1 phase, 400 cycle. OUTPUT: 115 volts, 1.0 KVA.



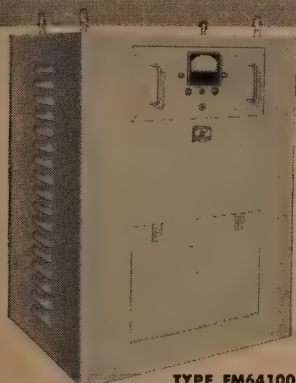
TYPE EM10009

INPUT: 187-229 volts, 3 phase, 400 cycle. OUTPUT: 208 volts, 5.0 KVA.



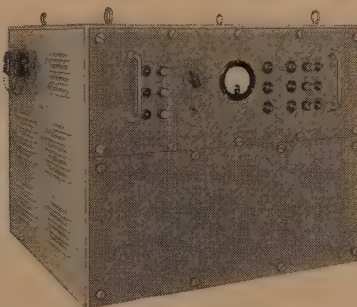
TYPE TMH7101

INPUT: 95-130 volts, 1 phase, 400 cycle. OUTPUT: 115 volts, 1.0 KVA.



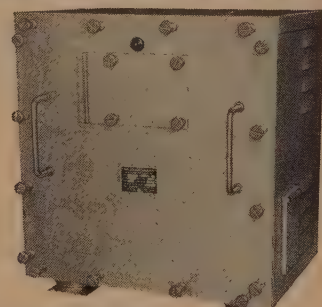
TYPE EM64100Y

INPUT: 420-500 volts, 50/60 cycle, 3 phase. OUTPUT: 460 volts, 131 amperes, 100 KVA. Electro-Mechanical for Large Industrial Loads.



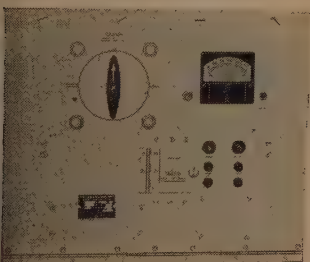
TYPE EM10002

INPUT: 105-135 volts per phase, 55/65 cycle, 3 phase. OUTPUT: 120 volts, 55.5 amperes, 20 KVA. Electro-Mechanical Meets MIL-E-4158.



TYPE EM10006

INPUT: 385-490 volts, 45/65 cycle, 1 phase. OUTPUT: 440 volts, 2.2 KVA. Electro-Mechanical Meets U. S. Navy Specifications 16-E-4 and 40-T-9.



TYPE EM10004

INPUT: 195-255 volts, 50/60 cycle, 1 phase. OUTPUT: 230 volts, 24 KVA. Electro-Mechanical Designed for MIL-E-16400.



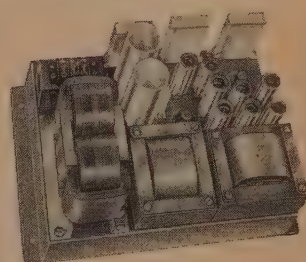
TYPE EM10003

INPUT: 80-115 volts, 50/60 cycle, 1 phase. OUTPUT: 115 volts, 2.0 KVA. Electro-Mechanical for Normally Low Input Voltages.



TYPE IE20003

INPUT: 95-135 volts, 60 cycle $\pm 10\%$, 1 phase. OUTPUT: 115 volts, 8.5 amperes, 1.0 KVA. Completely Electronic for Military Applications.



TYPE IE20002

INPUT: 190-250 volts, 50/60 cycle, 1 phase. OUTPUT: 230 volts, .15 KVA. Completely Electronic, withstands High Humidity.

THE SUPERIOR ELECTRIC COMPANY
5000B Bradley Ave., Bristol, Connecticut



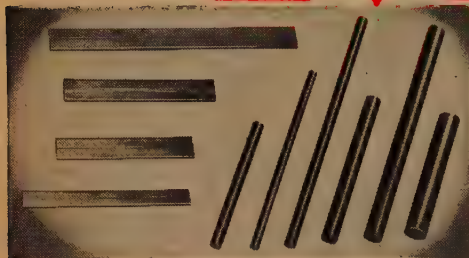
Precision

M

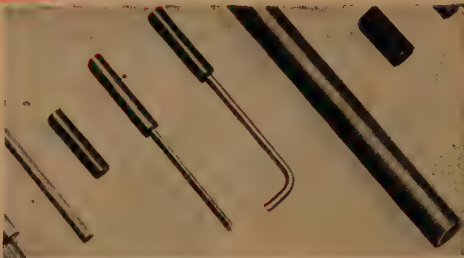
oldite Cores

ENGINEERED and DESIGNED

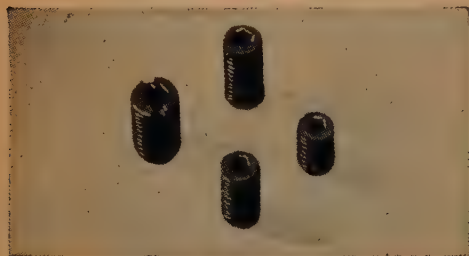
with your Equipment
in Mind



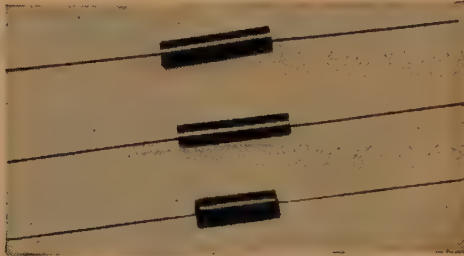
ANTENNA RODS



CORES, LOOP STICKS, SLEEVES, CUPS, TOROIDS, RODS



THREADED CORES



FERRITE COIL FORMS

Moldite FERRITES

offer these advantages:

- lower losses (eddy current)
- higher efficiency
- lower operating temperatures
- lighter weight
- smaller sizes for more compact construction
- higher permeability
- less corona effect
- lower cost



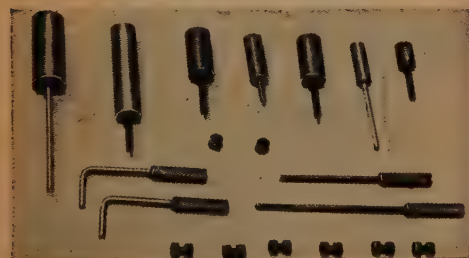
IRON SLEEVE & CUP CORES



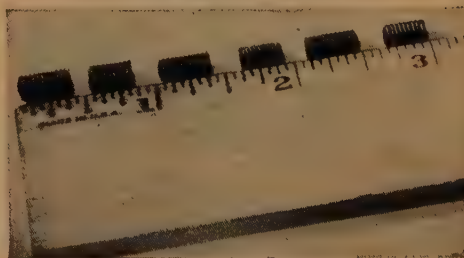
INSULATED IRON CORES

Moldite IRON CORES

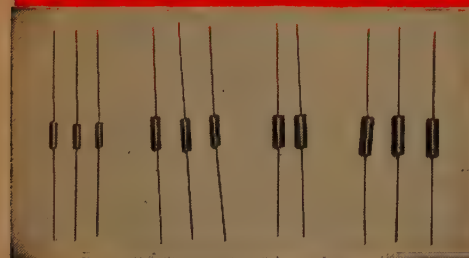
Moldite Iron Cores are made in an infinite variety of powders, shapes, and sizes and include all types of standard cores as well as numerous specially designed cores for new developments, commercial and military applications.



CORES WITH INSERTS (plated or unplated) and PLAIN CORES (Solid or with I.D.)



THREADED IRON CORES



IRON & PHENOLIC COIL FORMS
(also in ferrite)

Moldite COIL FORMS

Moldite Coil Forms provide simpler coil assemblies—smaller coils, point-to-point wiring, minimum of solder connections and are inexpensive.

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NATIONAL MOLDITE COMPANY

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Send for Catalog #150

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Hillside 5, New Jersey

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2419 South Grand Ave. 52 Humbercrest Blvd.
Los Angeles, Cal. Toronto 9, Ontario

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please mention Electronics Buyers' Guide.

June, 1957 — MID-MONTH — ELECTRONICS BUYERS' GUIDE

Shallcross

PRECISION WIREWOUND RESISTORS

Small, Shallcross "P-Type" encapsulated resistors offer unmatched stability and reliability for critical applications. All are reverse-pi wound on multiple-section epoxy resin bobbins, then hermetically-sealed in a tough epoxy coating.

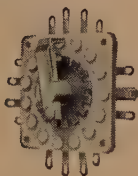
"P-Type" resistors are offered in a complete range of commercial and military

types with radial leads, axial leads, or lug terminals. Military types meet or exceed MIL-R-93A (85°C ambient) and MIL-R-9444 (125°C ambient) requirements—including salt water immersion tests. Standard tolerances—1%, 0.5%, 0.25%, 0.1%, and 0.05%. Close tolerances and matched pairs a specialty. *Write for Bulletin L-30.*



ROTARY SELECTOR SWITCHES

STANDARD SWITCHES



Single-Pole, instrument-type switches using silicone-impregnated steatite or phenolic decks. $\frac{1}{4}$ " laminated silver or solid brass contacts and multiple-leaf wiper arms. Positive, long-life ball-bearing detent. Up to 4 decks. Many optional special features. *Bulletin L-31.*

OVAL CERAMIC SWITCHES



Assembled by Shallcross from stock, interchangeable parts, the "12,000" Series offers custom-built quality without the delay and cost of specials. Solid silver contacts and collector rings on steatite decks. 0.0025 Ω contact resistance. 1 to 3 poles per deck, up to 10 decks. Adjustable stop. Optional detent. *Bulletin L-32.*

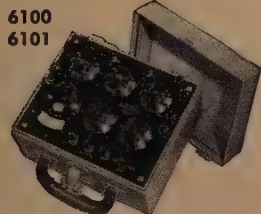
MINIATURE SWITCHES



Only $1\frac{1}{4}$ " square by 1" deep for first deck, $\frac{5}{8}$ " for additional decks. Silver alloy button contacts and multi-leaf wipers maintain low contact resistance. Glass fibre Silicone-laminate decks for outstanding humidity, moisture and salt-spray resistance. 1 to 4 poles per deck. 1 or 2 hole mounting. Easily-positioned, adjustable stops. *Bulletin L-45A.*

BRIDGES

Field & Lab Types for
Precise DC Resistance Measurements
... 1 micro-ohm to 10^6 megohms.
Bulletin L-19B



6100
6101



617 series



6320



638-R

Model Number	Measurement Accuracy	Maximum Setting	Minimum Setting	Circuit	Special Features
6100	$\pm 0.1\%$ $\pm 0.01\Omega$ (1Ω to 1.011 Meg Ω)	1.011 Meg Ω	0.001 Ω	Fault Location—Wheatstone	Fault Location by Murray, Varley, Hilborn & Fisher Loop Tests.
6101	$\pm 0.1\%$ $\pm 0.01\Omega$ (1Ω to 11.11 Meg Ω)	11.11 Meg Ω	0.001 Ω	Wheatstone	Four dial rheostat usable as decade box.
6320	$\pm 0.02\%$ $\pm 0.01\Omega$ (1Ω to 10 Meg Ω)	111.11 Meg Ω	0.00001 Ω	Wheatstone	Most accurate five dial Shallcross bridge for direct resistance measurement.
	$\pm 0.05\%$ to $\pm 20\%$ on separate "+" and "-" percent selectors. (1Ω to 10 Meg Ω)	11.111 Meg Ω	0.0001 Ω	Percent Limit	Rapid "GO-NO GO" percent limit testing. Built-in adjustable comparison standard.
638-R	$\pm 0.75\%$ or better (0.001Ω to 1Ω)	11.11 Ω	0.000001 Ω	Kelvin	Overlapping Kelvin and Wheatstone ranges selected with single ratio dial.
6350	$\pm 0.2\%$ $\pm 0.01\Omega$ (1Ω to 11.11 Meg Ω)	11.11 Meg Ω	.001 Ω	Wheatstone	Modular construction dual range power supply, null indicator-amplifier, for 115V. 60 cycle operation.
	$\pm 1\%$, (10 Ω to 10 Meg Ω) $\pm 2\%$, (10 Meg Ω to $10,000$ Meg Ω) $\pm 5\%$, (above $10,000$ Meg Ω)	1.111×10^6 Meg Ω	0.01 Ω	Wheatstone with d-c Amplifier	
617 Series	$\pm 0.1\%$ to $\pm 20\%$ on separate "+" and "-" selectors from a minimum resistance consistent with number of dials in use to the maximum settings.	111,111 Ω 1,111,110 Ω 11,111,100 Ω	0.1 Ω *1 Ω 10 Ω	Percent Limit	For rapid "GO-NO GO" percent limit testing. Hand or foot operated for production testing. All models also usable for direct resistance measurements. Binding post for external d-c power supply.
	$\pm 0.2\%$ $\pm 0.01\Omega$ from a minimum consistent with number of dials in use to the maximum setting.	111,111 Ω 1,111,110 Ω 11,111,100 Ω	0.1 Ω *1 Ω 10 Ω	Wheatstone	

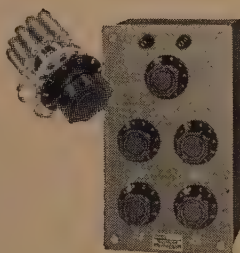
† Except 617B and 617J $\pm 0.1\%$ $\pm 0.01\Omega$.

* Except 617G, 0.01 Ω .

DECADE RESISTANCES

Available as single unmounted decades or as complete decade resistance boxes with 1 to 6 dials. Steps as low as 0.01 ohm; total resistance as high as 11,111,100 ohms.

Remarkably rugged and accurately-calibrated for maintained stability in rough lab, classroom and production line work. Uses impregnated Shallcross precision wirewound resistors mounted on steatite switch decks. Large button contacts of silver or brass. *Write for Bulletin L-17A.*



DECADE VOLTAGE DIVIDERS

Laboratory-type voltage dividers used in bridge circuits, for measuring rotary potentiometer linearity, in synchro-test delta bridge circuits, and in other uses requiring maintained accuracy and high resolution. Kelvin-Varley or Potentiometer circuits available in eight 4 and 5 dial models.

Impregnated Shallcross precision wirewound resistors used throughout. Steatite instrument switches assure uniformly low contact resistance. *Bulletin L-16B.*

SHALLCROSS MANUFACTURING CO.

10 Jackson Ave., Collingdale, Pa.

Representatives in principal U. S. Cities; Toronto, Canada

When ordering or seeking information please mention Electronics E

NRC EQUIPMENT CORPORATION

A SUBSIDIARY OF
NATIONAL RESEARCH CORPORATION

117 Charlemont St., Newton Highlands 61, Mass.

SALES OFFICES: Atlanta • Boston • Chicago • Cleveland • Detroit • Houston • Los Angeles • New York • Palo Alto • Pasadena • Pittsburgh • Washington, D.C.

HIGH VACUUM COMPONENTS, EQUIPMENT, and SYSTEMS

Mechanical Vacuum Pumps



NRC Model 100M

Because of the Gas Ballast feature, these pumps maintain their original high efficiency even when pumping 100% water, or other condensable vapors. Therefore, expensive oil purifiers and frequent and costly oil changes are not needed. NRC pumps have paid for themselves in three years from oil savings alone.

Model	Capacity CFM	Ultimate Vacuum Gas Ballast Off mm. Hg (A)	Ultimate Vacuum Gas Ballast On mm. Hg (A)	Price (B)
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SINGLE STAGE

2-S	1.25	3×10^{-3}	Less than one half millimeter of mercury	\$155
4-S	3.3	3×10^{-3}		225
6-S	6.75	3×10^{-3}		315
15-S	11.6	3×10^{-2}		475
30-S	29.5	3×10^{-3}		800
100-S	100	3×10^{-3}		1500
200-S	202	1×10^{-2}		2500
400-S	403	5×10^{-3}		4000

DOUBLE STAGE

2D	1.25	5×10^{-5}	2.5×10^{-2}	\$215
4D	3.3	5×10^{-5}	2.5×10^{-2}	280
6D	6.75	5×10^{-5}	2.5×10^{-2}	425
15D	14.75		2.5×10^{-2}	750
30M	29.5	3×10^{-3}	3×10^{-3}	1300
100M	100	3×10^{-3}	3×10^{-3}	2150
200M	202	3×10^{-3}	3×10^{-3}	3500
400M	403	3×10^{-3}	3×10^{-3}	5900

Note A: McLeod gauge reading

Note B: F.O.B. Newton, Mass. Price includes pump, base, v-belt drive, and motor

Diffusion and Booster Pumps



NRC Booster and Diffusion Pumps

While NRC high vacuum diffusion and booster pumps are unsurpassed for through-put, blank off, and forepressure tolerance, they are especially outstanding for reliability. They offer long, trouble-free life, and are easy to maintain. Narcoil pumping fluids are unusually stable, have excellent pumping characteristics, and are low-priced. Narcoil-10 is \$10.50 per gallon and Narcoil-40 is \$38.50 per gallon.

Model	Blank-Off, mm. Hg (C)	Max. Speed Liters/Sec.	Tolerable Fore-pressure mm. Hg	Pumping Fluid	Price (D)
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DIFFUSION PUMPS

G-2-M (A)	8×10^{-7}	30	0.50	Mercury	\$225
H-2-P	2×10^{-7}	80	0.25	Narcoil 40	125
A-2-P (B)	2×10^{-6}	85	0.20	DC 703	165
H-4-P	5×10^{-7}	300	0.31	Narcoil 40	235
H-6-P	5×10^{-7}	730	0.20	Narcoil 40	410
H-10-P	5×10^{-7}	1900	0.19	Narcoil 40	820
H-16-P	5×10^{-7}	5500	0.30	Narcoil 40	1450

BOOSTER PUMPS

B-1	1×10^{-4}	8	0.30	Narcoil 10	\$ 70
B-2	1×10^{-4}	85	0.85	Narcoil 10	205
B-4	1×10^{-4}	260	1.30	Narcoil 10	360
B-6	1×10^{-4}	530	0.90	Narcoil 10	1090
B-12	1×10^{-4}	3500	0.90	Narcoil 10	2250

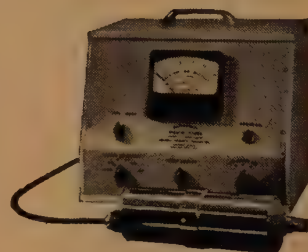
Note A: Glass pump

Note B: Air-cooled. Price includes blower

Note C: Untrapped ion gauge, except for G-2-M

Note D: Includes initial charge of pumping fluid

Vacuum Gages



NRC Model 520

NRC vacuum gauges are outstanding for their accuracy and ability to withstand hard usage. The NRC Model 520 shown above is an all-purpose gauge with uniquely wide range and accuracy. Its ruggedized new circuitry eliminates troublesome components, minimizes contamination effects and provides highly stable linear amplification.

Model	Type	Range mm. Hg	Price complete with head(s)
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NRC HIGH VACUUM GAUGES

501	Thermocouple Head	10^{-3} to 1.0	\$11.00
507	Ionization Head	2×10^{-8} to 5×10^{-3}	24.00
510	Alphatron® Ionization	10^{-3} to 10.	545.00
515	Logarithmic Alphatron® Ionization	10^{-3} to 10.	275.00
516	Pirani	10^{-3} to 1.0	175.00
520	Alphatron® Ionization	10^{-4} to 10^3	575.00
701	Thermocouple	10^{-3} to 1.0	120.00
710	Thermocouple Ionization	2×10^{-8} to 1.0	481.00

NRC HIGH VACUUM SYSTEMS

Write us about your problem if you are seeking ways to improve your product quality and cut costs.

As one of the pioneers and leaders in the design and manufacture of many kinds of high

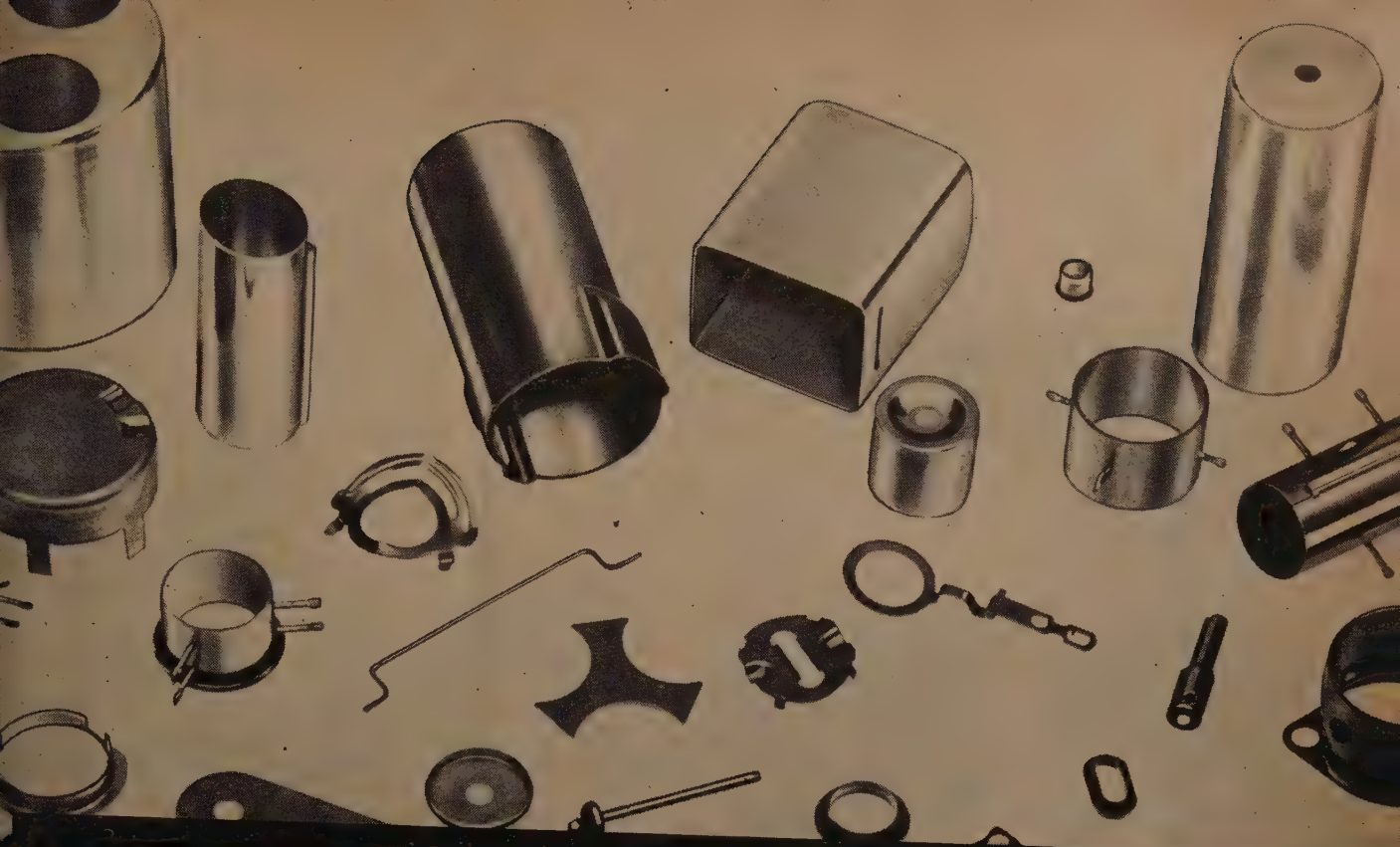
vacuum systems, NRC Equipment also can supply standard and specially engineered equipment such as:

Vacuum Furnaces, Vacuum Coaters
Freeze Driers, Impregnators, Vacuum Driers

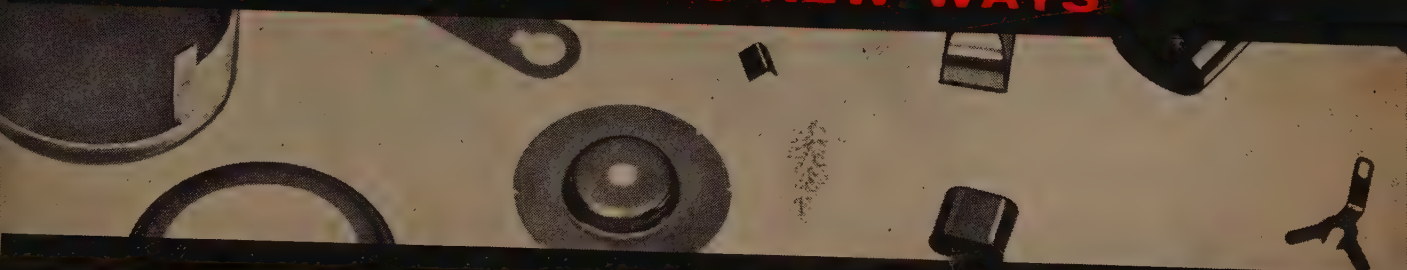
Vacuum Analytical Equipment
(for measuring gas content of metals)

Specially engineered vacuum systems

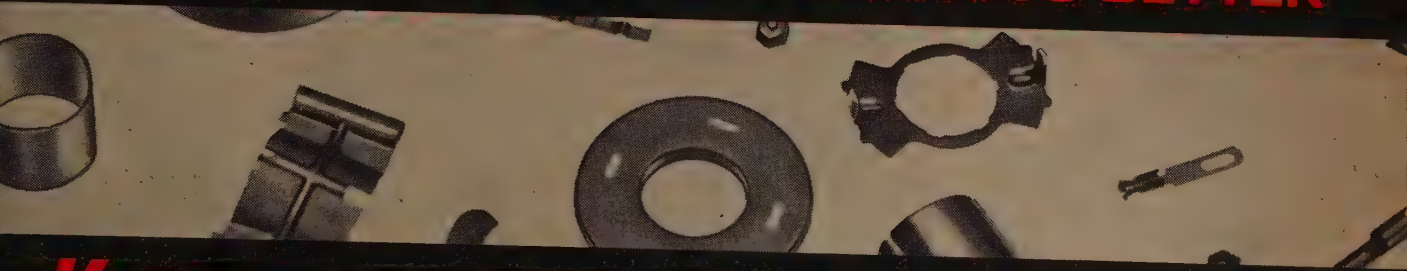
Leak detection apparatus



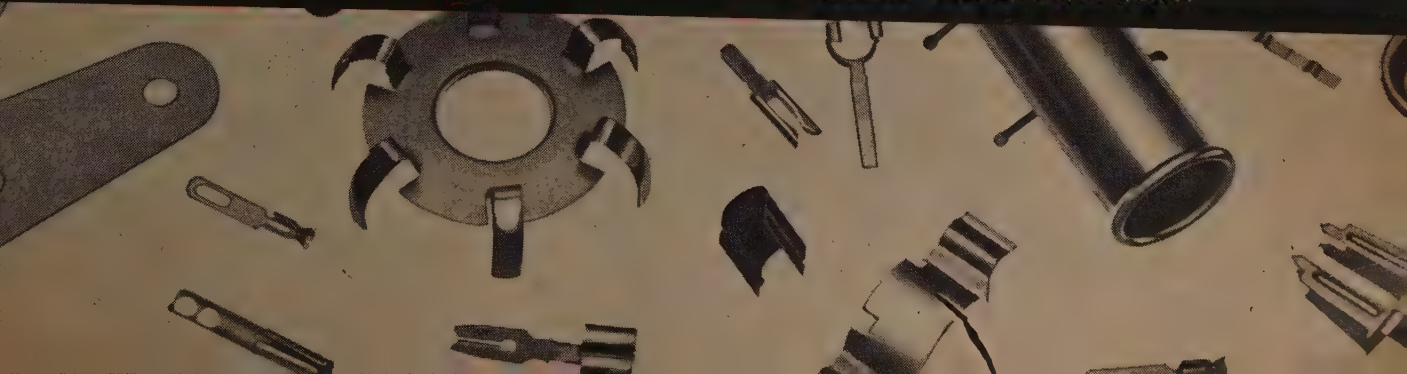
OLD HAND AT FINDING NEW WAYS



TO MAKE ELECTRONIC STAMPINGS BETTER



***Volkert* STAMPINGS, INC.** 222-34 96th AVE.
QUEENS VILLAGE 29, L. I., N. Y.





TIC offers a complete selection of all types of single-turn potentiometers with a wide range of sizes from 7/8" to 3" diameters . . . accuracies . . . and linearities. All units are designed for unique, one-piece clamp rings to join adjacent cups securely, yet allow each cup to be precisely phased. Up to 15 cups can be ganged on a single shaft.

Patented resistance-element design offers greater flexibility in linear and nonlinear function design. Precision-bored, phosphor-bronze sleeve bearings or low-friction stainless-steel ball-bearing construction . . . centerless ground stainless-steel shaft . . . servo or tapped-hole mounting . . . and complete environmental protection.



PRECISION TRIMMER POTENTIOMETERS

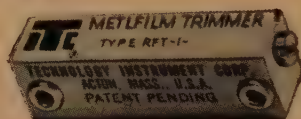


TIC provides a complete selection of trimmer potentiometers for precise, stable adjustments under all forms of adverse environmental conditions. The variety of sizes and shapes available, in addition to the wide range of power and temperature capabilities with the specific application.

Among the trimmers available is the original metal-film potentiometer, the TIC RFT Metfilm. Use of metallic film as the resistance element provides infinite resolution for ultra-

fine trimming. Extremely compact and stable with an over-all size that permits stacking 7 to the square inch. A 25-turn lead screw provides extreme accuracy of adjustment.

Latest addition to the TIC Trimmer Line is the low-cost, wire-wound RWT. This unit incorporates the same compact design as the RFT. Its wire-wound resistance element design provides low-cost.



GUIDE TO THE WORLD'S FINEST PRECISION *Potentiometers*

PRECISION LOW-COST P-SERIES POTENTIOMETERS

Low-cost P-series precision potentiometers are designed to meet the growing demand for economical precision potentiometers in commercial instrumentation. Precision features developed for stringent military applications have been retained in the low-cost P-series. In addition, the moulded bakelite housing minimizes distributed capacitance providing wide frequency response and stability in extremes of humidity.

Low temperature coefficient of resistance wire produces stability in extremes of temperature. Up to 6 cups can be ganged on a single shaft. Specially designed clamp rings permit independent phasing of each cup.



TYPE	DESCRIPTION	CASE SIZE	RESIS. RANGE	STAND. IND. LIN.	SPEC. IND. LIN.	STAND. WIND. ANGLE	CONSERV. POW. RAT. WATTS AT 25°C	MOUNTINGS AVAILABLE
SINGLE-TURN								
RV1½	Intermediate	1½" d.	100 to 100K	±0.5%	±0.25% above 7.5K	320°±3°	3	Servo or Tapped Hole
RVBC2	Ball-bearing Unitized	2" d.	100 to 100K	±0.5%	±0.20% above 5K	320°±3°	4	Servo Tapped Hole
RVP3	High Prec.	3" d.	100 to 200K	±0.2% above 1K	±0.10% above 5K	320°±3°	6	Servo or Tapped Hole
ST09	Min. Ball-bearing	7/8" d.	100 to 50K	±1.0%	±0.3% above 2K	320°±5°	2	Servo
ST18	Ball-bearing Unitized	1¾" d.	100 to 100K	±0.5%	±0.2% above 1K	320°±2°	3	Servo
ST30	High Prec. Ball-bearing	3" d.	100 to 200K	±0.2% above 1K	±0.1% above 5K	320°±3°	6	Servo or Tapped Hole
TRIMMERS								
RV½	Sub-min.	½" d.	50 to 15K	±5%		300° Nominal	1½	Thrd. Bushing
RV7/8	Miniature	7/8" d.	100 to 50K	±5%		320° Nominal	2	Thrd. Bushing
RFT	Sub-min. Metfilm	3/8" x 3/8" x 1-5/16" approx.	50 to 25K	±5%		Shaft Angle 9000° Nominal	1½	Eyelet Mount
RWT	Sub-min.	5/16" x 1/4" x 1¼" approx.	50 to 15K	±5%		Shaft Angle 9000° Nominal	2	Eyelet Mount
P SERIES								
P1¼	Low Cost Molded Bakelite	1¼" d.	100 to 50K	±2%	±0.5% above 5K	315°±5°	2½	Thrd. Bushing: P1¼ with add'l prec. pilot: SP¼
P1½	Low Cost Molded Bakelite	1½" d.	100 to 100K	±0.75%	±0.25% above 5K	315°±3°	4	Thrd. Bushing: P1½ with add'l prec. pilot: SP1½
P-3	Low Cost Molded Bakelite	3" d.	100 to 200K	±0.5%	±0.15% above 5K	320°±3°	8	Tapped Hole: P3 Servo: SP3

TECHNOLOGY INSTRUMENT CORP.

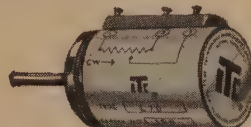
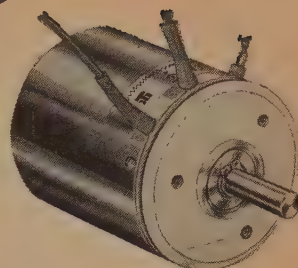
569A Main St., Acton, Mass., COLonial 3-7711 7229 Atoll Ave., North Hollywood, Calif. POplar 5-8620 STanley 7-0286

PRECISION MULTI-TURN POTENTIOMETERS

Manufactures a complete line of precision multi-turn potentiometers of the highest quality for precision computer, mechanisms and electromechanical instrumentation. The M10T provides wide temperature and resistance ranges . . . extreme electrical accuracy and stability. Extremely close tolerances in shaft diameter, concentricity, and perpendicularity assures complete transfer of M10T accuracy to external systems. One-piece unit of all functional parts . . .

stainless-steel cover . . . and bonding of cover to one-piece base provides complete environmental protection.

The 10-turn M10T-09 precision potentiometer combines miniaturization with performance. Wide temperature range (-55°C to $+130^{\circ}\text{C}$) and wide resistance range (1K to 50K ohms) of the M10T-09 provide versatility.



PRECISION TRANSLATORY POTENTIOMETERS

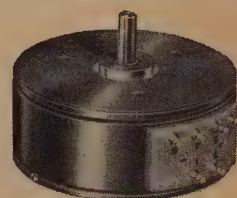
TIC Precision Translatory Series differs from other potentiometers in that resistance variation is attained by means of linear (translatory) motion rather than the conventional shaft rotational method. Unique design permits up to three completely isolated resistance elements with separate brush arms and take-offs in a single housing. The RVT translatory can be provided with both linear and nonlinear resistance functions.



SINE-COSINE AND OTHER PRECISION POTENTIOMETERS

The RVP3-S59 Precision Sine-Cosine Potentiometer represents the first for Technology Instrument Corporation. Patented double-contoured resistance element card makes possible the extreme accuracy of the RVP3-S59 and other standard non-linear potentiometers. Double-contoured card (resistance element card is contoured symmetrically on both edges) also permits greater flexibility in the design of nonlinear functions. The precision sine-cosine variable resistor RVP3-S59 is

especially designed for precision resolution of voltages into sine and cosine components. High resolution adds to the high conformity of the output to a sine function to achieve the extreme accuracy of the RVP3-S59. Because of the fact that the RVP3-S59 is a resistive device no compensation is required for reactive elements or frequency characteristics. May also be used on both AC and DC systems . . . over wide frequency ranges.



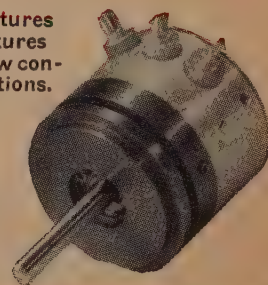
ROTARY METFILM POTS

Type MFR — Hermetically sealed Rotary Metfilm Precision Potentiometer features super tested reliability, infinite resolution, high accuracy, operation at temperatures up to 145°C , low torque, and long life exceeding 1,000,000 cycles. A wholly new concept in potentiometer construction withstanding extremes of environmental conditions.



MODULAR DESIGN POTS

Type PVR — New modular design pots for high temperature and accuracy. A complete line ranging from $\frac{1}{2}$ " diameter to 3" diameter linear and non-linear pots with a new concept of flexibility. Modular design permits a choice of mountings, ganging without clamp rings, variable number of taps, selection of terminal types and a delivery schedule to meet any demands.



TYPE	DESCRIPTION	CASE SIZE	RESIS. RANGE	STAND. IND. LIN.	SPEC. IND. LIN.	STAND. WIND. ANGLE	CONSERV. POW. RAT. WATTS AT 25°C	MOUNTING AVAILABLE
T-09	Miniature 10-Turn High Precision	$\frac{7}{8}$ " d.	1K to 50K	0.10%	$\pm 0.05\%$	$3600^{\circ} \pm 2^{\circ} - 0^{\circ}$	5	Servo or Tapped Hole
T-19	10-Turn High Precision	$1\frac{1}{8}$ " d.	1K to 250K	0.05%	$\pm 0.025\%$ over 1K	$3600^{\circ} \pm 2^{\circ} - 0^{\circ}$	5	Servo and Tapped Hole
	Translatory	$1\frac{1}{4}" \times 1\frac{1}{4}"$ $\times (3\frac{1}{8}" , 6\frac{1}{8}" , 9\frac{1}{8}" , 14\frac{3}{8}")$	100 Ω to 25000 Ω	$\pm 1\% @ 2\frac{1}{2}"$ plus $\pm 2.5\% @ 1"$ to $2\frac{1}{2}"$ $\pm 5\% @ \frac{1}{2}"$ to $1"$			$2\frac{1}{2}$ 5 6 8	Threaded Bushing
-1	Rotary Metfilm		1K-25K	0.5%				Servo Std. other spec.
-2	Rotary Metfilm		1K-50K	0.5%				Servo Std. other spec.
-05	Modular Design Precision Pot.	$\frac{1}{2}$ " d.	50-20K	$\pm 0.5\%$	0.3%	$320^{\circ} \pm 5^{\circ}$	2	Servo Threaded Bush. Tapped Hole
-09	Modular Design Precision Pot.	$\frac{7}{8}$ " d.	100-150K	$\pm 0.5\%$ of tot. R above 5K	$\pm 0.25\%$	$320^{\circ} \pm 5^{\circ}$	2	Servo Std. Thrd. Bushing Tapped Hole Available
-11	Modular Design Precision Pot.	$1-1/16"$ d.	100-150K	0.5%	0.25%	$320^{\circ} \pm 5^{\circ}$	3	Servo Std. Thrd. Bushing Tapped Hole Available
-15	Modular Design Precision Pot.	$1-7/16"$ d.	100-200K	0.5%	0.20%	$320^{\circ} \pm 2^{\circ}$	4	Servo Std. Thrd. Bushing Tapped Hole Available
-18	Modular Design Precision Pot.	$1-3/4"$ d.	100-200K	0.5% (IND. CONFORM.)	0.15%	$320^{\circ} \pm 2^{\circ}$	4	Servo Std. Thrd. Bushing Tapped Hole Available
-3-S59	Sine-Cosine	3" d.	20K	$\pm 0.5\%$ peak to peak		360°	4	Tapped Hole or Servo S156
-3-S200	Double Sided Square-Law	3" d.	25K	$\pm 0.25\%$ of total V		$\pm 180^{\circ}$	3	Servo or Tapped Hole S121
-3-S208	50 db Logarithmic (Exponential)	3" d.	15K	$\pm 2\%$ constant frac.		320°	1.5	Servo or Tapped Hole S204
-S373	Sine Function	2" d.	9.5K	$\pm 2\%$ peak to peak		360°	2.5	Servo or Tapped Hole S336
-S417	20 db Logarithmic (Exponential)	2" d.	3.6K	$\pm 1\%$ of total V		281°	2.5	Servo or Tapped Hole S412
-S427	Single Sided Square-Law	$1\frac{1}{8}"$ d.	10K	$\pm 0.5\%$ of total ($V_1 - 2$)		350°	2.5	Servo or Tapped Hole S245



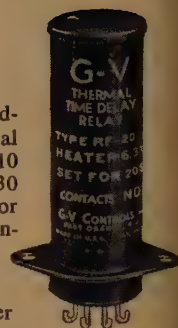
► Thermal Time Delay Relays

Stainless steel mechanism welded into a single integral structure for unequalled resistance to vibration and shock. Heater built inside expanding member for maximum efficiency and protection. Rolling contact action for positive operation.

RED DOT RELAYS—NEW low cost timing relay for Industrial Controls, Heating Equipment, Communications, Air Conditioning, Electronics. Available from stock in standard heater voltages and time delays.

HERMETICALLY SEALED TYPE—Adjustable time delay • Miniature and octal sizes—metal shells • Time Delays—1/10 sec. to 5 min. • Heater voltages up to 230 • Fully temperature compensated • For industrial and military applications • Contact ratings up to 6 amp.

TYPICAL USES Delaying plate voltage application • Producing hold-over interval after interruption of power • Delaying automatic shut-down until a fault has continued for a specified period.



Notably Efficient • Widely Used



Precision Thermal Devices

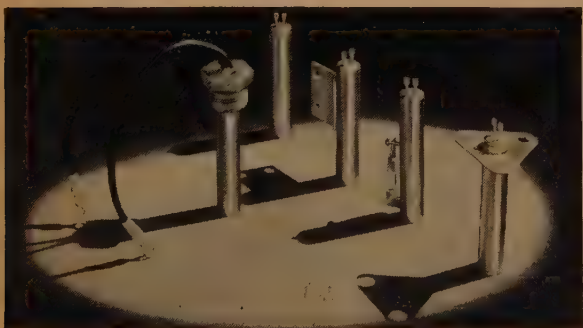
A quality line skillfully designed and thoroughly field-tested.

G-V Thermal Relays Have Proved Performance Advantages—

- So reliable that the country's principal producers of electronic equipment have adopted them as production components!

- So reliable that they have been used on hundreds of government contracts!
- So reliable that they have been in successful field use for over three years!

And G-V offers you helpful engineering cooperation and the most complete technical data service.



► Electrical Thermostats

Features: Hermetically sealed • Adjustable or fixed temperature • Rapid in response—metal shell is the sensing element • Wide variety of sizes and mounting forms • Exposure to -70°C . does not change setting • High shock and vibration resistance • Current rating—1 amp. to 10 amp. • Stable setting and precise control.

Voltage Sensing and Current Sensing Relays—Thermal Type

Features: Responds to changes in current or voltage • Currents .015 to 5 amp • Voltages 2 to 230 volts • Time constants—1 sec. to 200 sec. • Adjustable operating point • Minimum differential • Independent of ambient temperature • Independent of frequency • Hermetically sealed in metal shell • Miniature size • Small, light, and noiseless.

Typical Uses: Over- or under-voltage alarm or cut-off • Overload protection • Voltage or current regulation.

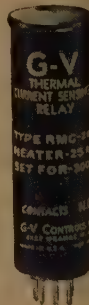
Write for bulletin and help with your particular problems.

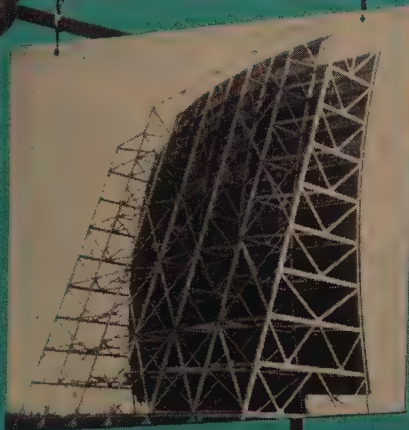


G-V CONTROLS INC.

12 Hollywood Plaza, East Orange, New Jersey

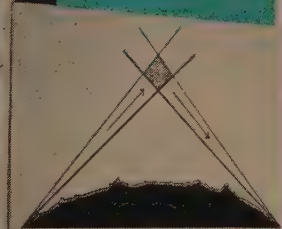
Greatly expanded production facilities assure prompt deliveries.



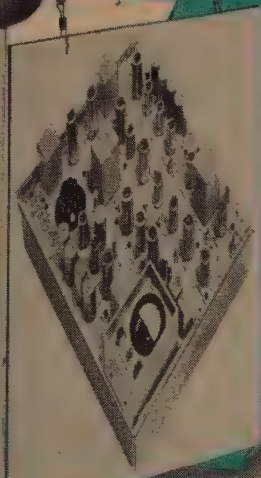


Tropospheric scatter radio systems
Point-to-point communications (*long and short range*)
Guided missile control apparatus
Thin route FM multiplex equipment
 for telephone toll service
Wave propagation research gear

Inquiries invited on special applications in these and related fields



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Stupakoff

Products of Quality

Manufactured by **STUPAKOFF** DIVISION OF

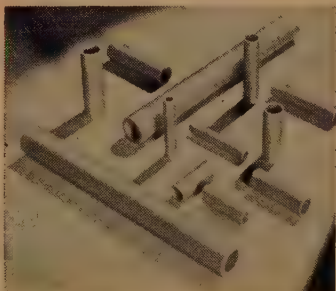
For many years Stupakoff has specialized in the manufacture of precision ceramic parts, involving production runs into the tens of thousands. They are made in plain, ground, metallized and assembled types—for any voltage, frequency or temperature.

Stupakoff Hermetic Seals are made with Kovar alloy and hard glass. Oxidation of these materials at their interfaces forms a strong, vacuum- and pressure-tight, corrosion-proof bond.

Stupakoff facilities include large, well-equipped laboratories; extensive modern production and testing equipment; and an experienced staff of quality-conscious engineers and technicians.

CERAMIC TUBING

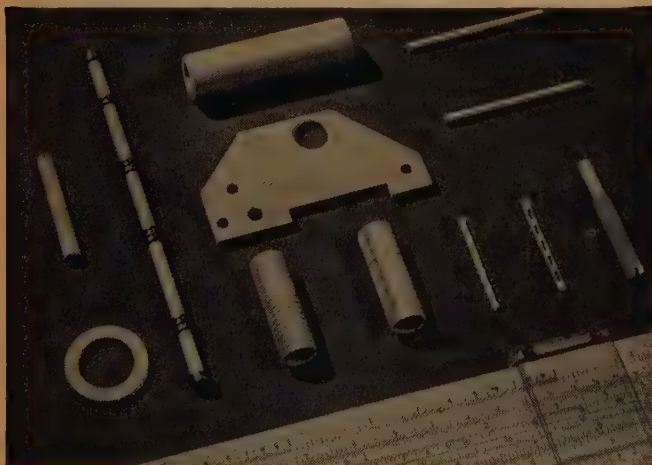
For applications requiring low-cost, high quality ceramic tubing, Stupakoff offers an attractive selection of standard sizes and lengths. Available from stock in a wide variety of sizes, from .015 to 5.125-in. OD, .006 ID to 2.625-in. ID, and any length up to 15 inches.



PRECISION CERAMICS—In the assembly of electrical or electronic equipment, the use of precision-made components means faster production and the correct functioning of the equipment in service.

Through the application of experience-developed engineering and technical skills and modern equipment, Stupakoff produces, in large volume, parts that meet most exacting tolerances and specifications.

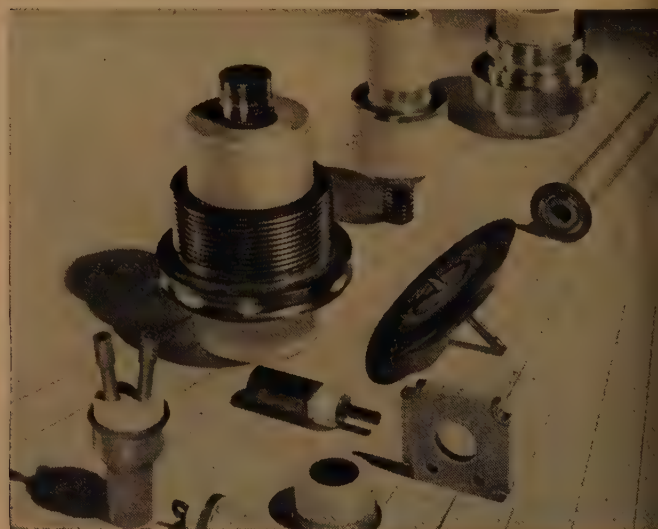
Stupakoff precision ceramics may be simple or complex; and made from various ceramic materials.



CERAMIC PARTS—Stupakoff is a leading manufacturer of ceramic products for electrical and electronic applications for all voltages, frequencies and temperatures. Parts are made by modern production methods of Alumina, Cordierite, Forsterite, Magnesite, Zircon, Stupalith® and Steatite—plain, ground, metallized or assembled.

Where thermal shock conditions prevail, parts made of Stupalith will withstand extremely severe service.

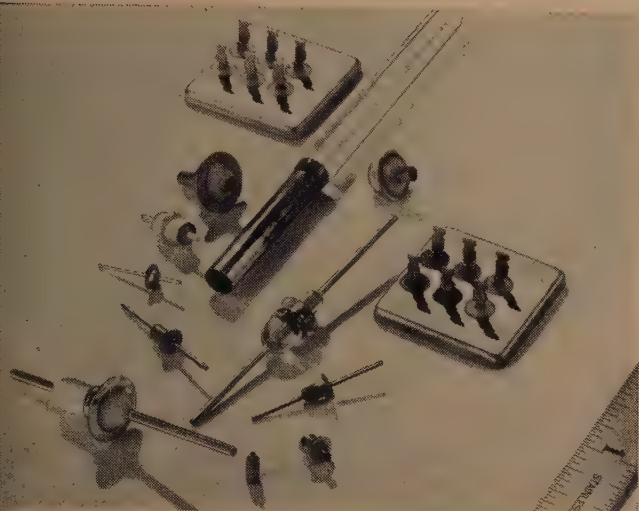
Coil forms, insulators, brazing fixtures and vacuum tube spacers are among the popular items.



METALLIZED ASSEMBLIES—Combine a specially developed metal bond and rigidly controlled alumina to give a strong, durable, vacuum-tight product. Terminals are supplied with Stupakoff Metal Bond which significantly reduces assembly costs by withstanding exposure to soldering temperature for prolonged period without losing bond strength.

FOR ELECTRICAL and ELECTRONIC applications

The **CARBORUNDUM** Company, Latrobe, Pennsylvania



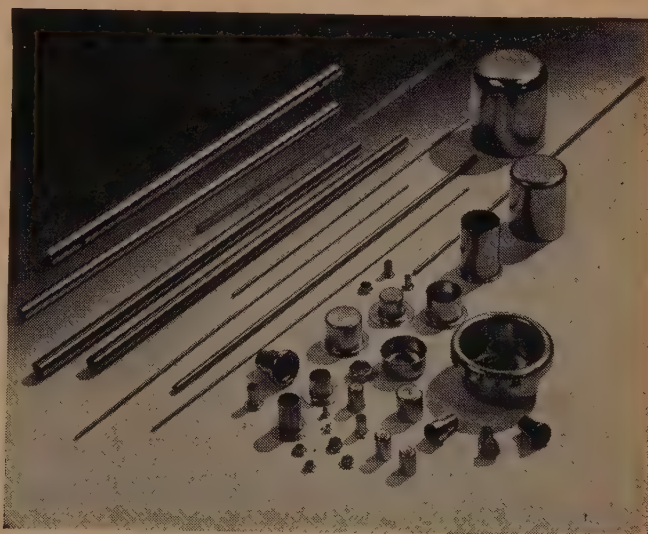
KOVAR GLASS SEALS—Single terminals with tubular, solid or flattened and punched center lead; high voltage terminals for feed-through applications; multi-header terminals for applications requiring a number of leads in limited area; stand-off terminals; strain relief terminals and special Seals made for exacting applications.



COMPRESSION SEALS—Thermally pre-stressed compression seals designed to provide the strength, durability and electrical properties needed for the most demanding applications. Dimensionally controlled for ease of welding and soldering, choice of tin-nickel-silver or gold plating for appearance and corrosion resistance.



METAL-CERAMIC SHAFTS—Made in a wide variety of sizes and designs, Stupakoff Metal-Ceramic shafts consist of metal bands permanently attached to ceramic rods. Through care in manufacture, exceptional precision is maintained on a mass-production basis. For example, it is unusual to hold the concentricity of components to a T. I. R. 0.001 in.



KOVAR ALLOY—The ideal alloy for glass sealing, Kovar matches the expansivity of hard glass over the entire working temperature range. It resists mercury attack, has ample mechanical strength and seals readily with simple oxidation procedure. It is available as sheet, strip, foil, rod, tube, wire—or fabricated into cups, eyelets, leads and other shapes. Kovar produces a permanent vacuum-tight seal, is usable in any thickness, and can be welded, soldered and brazed to other metals.

INSTRUMENTS & COMPONENTS

precision engineered by CURTISS-WRIGHT



The Curtiss-Wright DISTORTION ELIMINATING VOLTAGE REGULATOR

- Furnishes 1.4 KVA of distortion-free, $\pm 1\%$ regulated power without phase shift
- 330 microseconds recovery time —fastest regulation available
- Reduces line distortion to less than 0.3%
- Simultaneously provides 4 KVA of $\pm 1\%$ electromechanically regulated power
- Model EE 100A \$1,689.00 F.O.B., Carlstadt, N. J.

Applications:

Provides simpler, more accurate calibration of meters . . . better design of transformers, synchros, motors, magnetic amplifiers . . . easier testing with fewer rejects . . . more accurate measurement of magnetic properties . . . better computer performance . . . elimination of fast line transient effects.



The Curtiss-Wright "SNAPPER" THERMAL TIME DELAY RELAYS

- Eliminate chatter with snap action
- Single-pole, double throw contacts
- Wide temperature range (-65°C to $+100^{\circ}\text{C}$)
- Metal envelope (7 or 9 pin) miniature or (8 pin) octal
- Glass envelope in 9 pin miniature
- Preset time delays in metal from 3 seconds to 3 minutes, glass from 5 to 60 seconds

Applications:

For military or commercial applications, "Snapper" Relays are providing positive, reliable action in circuits requiring time delays.

Other Components:

Curtiss-Wright also manufactures "Snapper" Thermostats, "Memory" Relays and Magnetic Amplifiers.



The Curtiss-Wright DYNAMIC CAPACITOR ELECTROMETER

- A micro-microammeter and millivoltmeter in one instrument
- Measures currents from 10^{-16} to 10^{-5} amperes
- 10, 100 and 1,000 mv ranges
- Exclusive diaphragm-type dynamic capacitor
- Extremely high input impedance — 10^{15} ohms
- Better than 2% accuracy, high stability
- Price \$1,075.00 F.O.B., Carlstadt, N. J.

Applications:

Measurement of semi-conductor parameters, low-level voltages, static charges, floating grid potentials, grid currents and insulation resistance. Used in mass spectrometry and pH measurements; nuclear reactor control and radiation monitoring systems; beta and gamma gauge control systems.

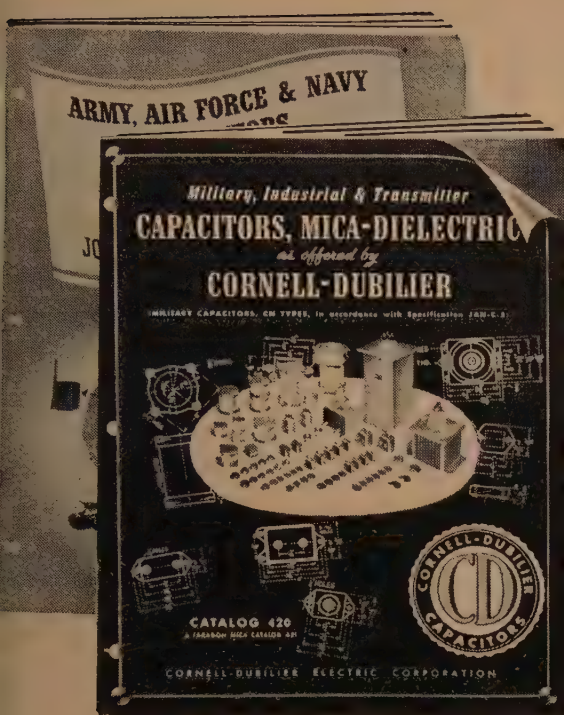
Nuclear Instrumentation and Controls

The Electronics Division is now working on contracts for nuclear control systems. You are cordially invited to discuss your nuclear instrumentation and control problems with us.

Detailed data sheets and application information available on all products.



Curtiss-Wright has career positions open for qualified engineers and technicians.



Catalog No. 400. Paper Dielectric Capacitors to Army-Navy specifications.

Catalog No. 420. Mica Capacitors. Industrial, Military, and Transmitter.



Catalog 200D-3

General: electrolytics, paper, mica, ceramic, filters, printed circuits.



Bulletin 528A

Tantalum: electrolytic, subminiature, metal-cased, low voltage tubular units.



Bulletin 179

A.C. Motor Capacitors, oil impregnated and filled rectangular cases.



Catalog 410

"Powercon inverters" D/C to A/C. A/C to D/C.



Catalog 616

Ceramic capacitors. Disc, tubular and specials.



Bulletin 147

Miniaturized tubulars, metal-cased, paper dielectric.



Catalog PRT 225
Printed Circuitry



Catalog 400

JAN. Paper Capacitors.



Catalog 166

R. F. Attenuation Filters.



Bulletin 527

Low Temperature Electrolytics. Metal-cased tubulars.



Bulletin 162

Automation: Phenolic cased plug-in tubulars.



Catalog VIB-3

Vibrators; Automotive, industrial, communications.

THESE ARE ENGINEER-SAVERS!

Any one of these CORNELL-DUBILIER catalogs or engineering bulletins will make it easier to find the right capacitor for practically every problem. A complete file of the C-D Bulletins are available—free of charge, of course. They'll save you precious hours every week. Check off—on convenient coupon below—the catalog, catalogs or engineering bulletins you wish to have us send you.

if it's a capacitor
we make it



CONSISTENT HIGH DEPENDABILITY
CORNELL-DUBILIER CAPACITORS

CORNELL-DUBILIER ELECTRIC CORPORATION
333 HAMILTON BOULEVARD, SOUTH PLAINFIELD, NEW JERSEY.

- ☐ Please put me on your mailing list for all engineering bulletins;
☐ Please send me—free of charge—the C-D Bulletins circled below:

Name _____

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420 200D-3 528A 162 410 616 166 PRT 225 400

147 527 179 VIB-3

EBG-7



Leadership for
20 Years...

ANTENNAS

ANTENNA SYSTEMS

TRANSMISSION LINES

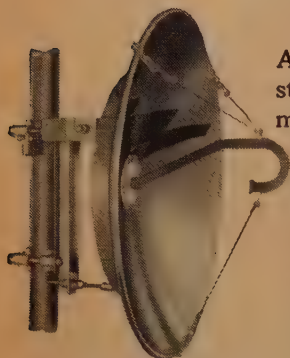
The ANDREW product line covers the related fields of antennas for communication and broadcasting, and transmission lines to connect these antennas to transmitters, receivers or other electronic equipment.

PARABOLIC ANTENNAS

A wide selection of standard models in a complete range of sizes and frequencies is stocked for immediate delivery. Special antennas are designed and manufactured to meet individual requirements. Here is a representative selection of stock antennas.

TYPE NUMBERS OF STOCK PARABOLIC ANTENNAS

Frequency Range (MC)	ANDREW Type Number			
	4 ft. dia.	6 ft. dia.	8 ft. dia.	10 ft. dia.
890 - 920	1004A-1	1006A-1		1010A-1
920 - 960	1004A-2	1006A-2		1010A-2
1700 - 1850	2004A-1	2006A-1	2008A-1	2010A-1
1850 - 1990	2004A-2	2006A-2	2008A-3	2010A-3
1990 - 2110	2004A-3	2006A-3	2008A-3	2010A-3
2450 - 2700		P6-24		P10-24
3750 - 4200			PS8-37	
5925 - 6425	P4-59	P6-59	P8-59	P10-59
6575 - 7125	P4-65	P6-65	P8-65	P10-65
7125 - 7425	P4-71	P6-71	P8-71	P10-71



Type PT4-59 4-foot antenna with waveguide horn for 5925-6425 mc.

Tower or roof mounts are included as part of the antenna. Most standard mounts include elevation and azimuth adjustments of at least $\pm 5^\circ$. Special heating equipment is available and recommended for antennas operating above 5000 mc in ice areas.

For antennas requiring tower mounts, specify prefix PT for all sizes: example, PT4-59. Roof mounts for 4' and 6' sizes use prefix PM; example, PM6-71. 8' and 10' mounts are designed for either tower or roof mounting.

COMMUNICATIONS ANTENNAS

FOLDED UNIPOLES—(25 mc to 174 mc), omnidirectional. The ideal fixed station transmitting and receiving antenna. Inexpensive, lightweight and easy to install. Some lower frequency models incorporate new design changes which increase windload ratings and eliminate field cutting of vertical elements to frequency.

HIGH GAIN—for 148-174 mc, 400-470 mc. ANDREW High Gain omnidirectional antennas will increase your coverage and multiply benefits by the number of mobile units in the system. Type numbers, frequency and gain are shown below.

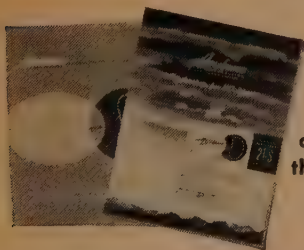
Omnidirectional Pattern		
Type 3000	148-174 mc	6.3 db
Type 3006	148-174 mc	9.0 db
Type 4000	450-470 mc	7.6 db
Type 4002	450-470 mc	5.0 db
Type 4010	400-420 mc	7.5 db
Offset Omnidirectional Pattern		
Type 201	450-470 mc	10.8 db in max. dir.
Type 3004	148-174 mc	8.1 db in max. dir.

CORNER REFLECTORS. Unidirectional antennas for 25-174 mc and 400-960 mc. Preferred for their high gain and stable operation under severe weather conditions. Also may be utilized for low power TV transmitting in directional and omnidirectional arrays.

ANTENNA SYSTEMS AND PLANNING

ANDREW Corporation offers engineering assistance in the planning of your antenna-transmission line

system at no cost to you. Contact the nearest ANDREW office for this consulting service.



Be sure your library contains Andrew catalog 21 and the new product supplement, 21S.

TRANSMISSION LINES

HELIAX, flexible air dielectric cable combines the efficiency of the finest copper cables with handling ease of solid dielectric types. Available in two sizes, $\frac{7}{8}$ ", Type HO and $1\frac{1}{8}$ ", Type H1, with complete series of pressurized end fittings. Type HO may now be used up to 5000 mc.

RIGID AND SEMI-FLEXIBLE. Complete range of sizes for UHF and VHF systems. Semi-flexible soft copper cable in $\frac{3}{8}$ " and $\frac{7}{8}$ " sizes, rigid copper line $\frac{7}{8}$ " to 9" sizes. Adaptors and fittings available from stock. New 50 ohm, $6\frac{1}{8}$ " line now available for high power applications.

WAVEGUIDE. High efficiency copper clad steel waveguide in sizes ranging from $7\frac{1}{2}$ " to 15" for pressurized UHF systems. Includes accessories for complete line installation.

COAXIAL SWITCH. Automatic, 50 ohm, $3\frac{1}{8}$ ", UHF and VHF. This new, automatic switch now allows high power communication systems, as well as VHF and UHF television stations, the convenience of four-second switching of $3\frac{1}{8}$ " coaxial transmission line at powers up to 10 kw at 1000 mc. Both automatic and manual models include automatic high voltage disabling switch and remote position indicating lights.

ASSOCIATED ANDREW PRODUCTS

Antenna Reflectors, Parabolic Antennas, Tropospheric Antennas, Yagi Antennas, Mobile Antennas, UHF and VHF Cable, Transmission Line (all types) Connectors, Coaxial Cable

Controls, Photoelectric Dehydrators, Automatic Filters, Microwave Filters, UHF and VHF Lighting Equipment, Tower Lines, Slotted Masts, Telescoping Phasing and Tuning Equipment.

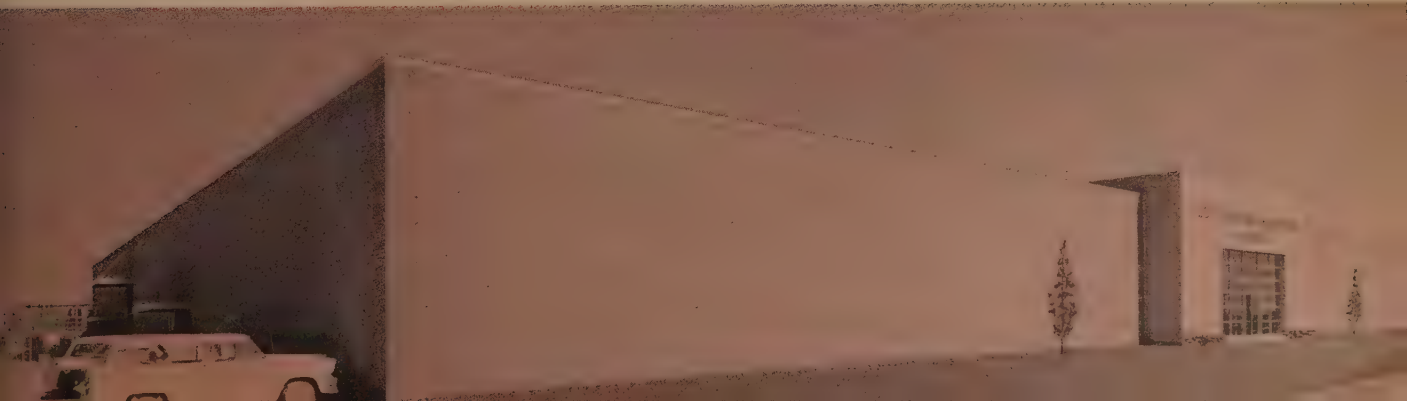
Andrew
CORPORATION
363 EAST 75th STREET • CHICAGO 19

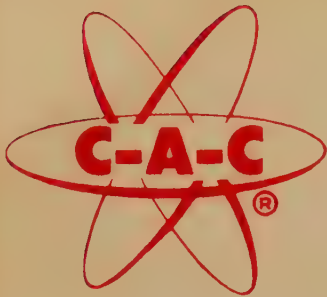
COMMUNICATION ACCESSORIES
COMPANY



**AMERICA'S LARGEST
EXCLUSIVE FACILITY**
for the Manufacture of All Types of

**T O R O I D A L
C O M P O N E N T S**





C-A-C's New Large Facilities Provide PRODUCTION ADVANTAGES

The new C-A-C building, covering over 50,000 square feet on a single level, makes possible complete departmentalization utilizing the most modern production facilities and techniques. Over 750 employees, working as a well-organized team—and highly experienced in their specialized fields—offer an unexcelled service in the processing of orders. Year 'round air-conditioning and humidity control not only provide greater employee comfort, but contribute to higher precision workmanship.

The C-A-C organization was built on service—it pioneered many of the recent developments in toroidal windings and packaging techniques. Now, in the most complete laboratory of its kind (including environmental testing facilities), C-A-C engineering and research is progressing to bring you new developments—new advantages.

SEE YOUR C-A-C MAN FOR ADDITIONAL INFORMATION



NEW YORK—H. Gray Assoc., YE 2-3825
21-10 33rd Rd., Long Island City 6, N. Y.

PHILADELPHIA—C. R. Hile Co., Elgin 6-2266
Hillview Road, Box 144, Paoli, Pa.

BALTIMORE—C. R. Hile Co., Northfield 5-4500,
L. G. Korman, 5006 Kenwood,
Baltimore 6, Md.

LOS ANGELES—S. O. Jewett, State 9-6027,
13537 Addison St., Sherman Oaks, Calif.

TUCSON—S. O. Jewett, Pat Maguire, East 7-1644
1025 S. Van Buren, Tucson, Arizona

SYRACUSE—Naylor Electric Co., 2-3894,
1115 Hills Building, Syracuse, N. Y.

MERIDEN—Henry Lavin Assoc., Beverly 7-5527,
P. O. Box 196, Meriden, Conn.

DALLAS—Norvell Assoc., Forest 8-4180,
5622 Dyer St., Dallas, Texas

ST. PAUL—Northport Engineering, Inc.
Midway 6-2621, J. D. Webster, 1729 Selby St.,
St. Paul 4, Minn.

ST. LOUIS—E. W. McGrade Co., Parkview 5-6550,
1110 S. Brentwood, St. Louis 17, Mo.

ORLANDO—C. R. Hile Co., 711 Magnolia Ave.,
Wm. Lehmann, Orlando, Fla.

CHICAGO—Gassner & Clark Co.,
Rogers Pk. 4-6121, 6644 N. Western Ave.,
Chicago 45, Ill.

NEEDHAM—Henry Lavin Associates,
3-3446, Bob Curtin, 82 Curve St.,
Needham, Mass.

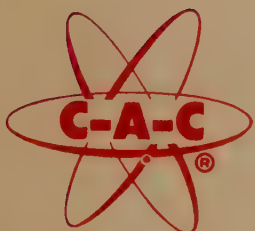
CLEVELAND—Ernie Kohler Assoc.,
Olympic 1-1242, 8905 Lake Ave.,
Cleveland 2, Ohio

DAYTON—Ernie Kohler Assoc.,
Oxmoor 2813, 2600 Far Hills Ave.,
Dayton 9, Ohio

SEATTLE—Testco, Mohawk 4895,
D. Thompson, Boeing Field, Rm. 105,
Seattle 8, Wash.

INDIANAPOLIS—Morris, Cunningham &
Mitchell, Clifford 1-3222, 1-0225, 5-6268,
6101 College Ave. Bldg., Indianapolis 20, Ind.

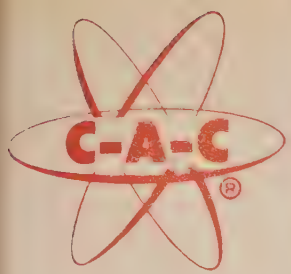
KANSAS CITY—E. W. McGrade Co.,
Logan 1-3709, P. O. Box 8876, Kansas City, Mo.



Communication Accessories Company

A Subsidiary of Collins Radio Company

LEE'S SUMMIT, MISSOURI
PHONE KANSAS CITY Broadway 1-1700

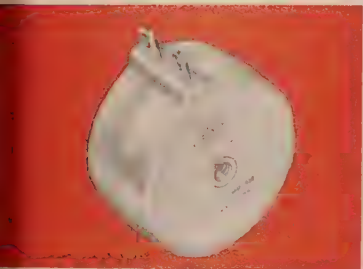


TOROIDAL INDUCTORS



UNCASED TOROIDS

Basic inductor component. Plain, wax or plastic dipped with flex-leads. Hi Q values 10cps to 10mc. Complete range of sizes: subminiature, wedding ring and up to 12" OD. Standard inductances stocked for immediate delivery. Mass production utilizing CAC-designed winding equipment enables swift completion of large orders.



PLASTIC CASED TOROIDS

CAC compression molded toroids per Mil specs have become the standard of the industry. Most compact design—may be stacked—mounted by center bushing which absorbs mounting pressures—sturdy, tinned terminals—arrangements available up to 6 terminal connections. Standard inductance values shipped from stock—special inductances and configurations supplied promptly on request.



HERMETICALLY SEALED CASED TOROIDS

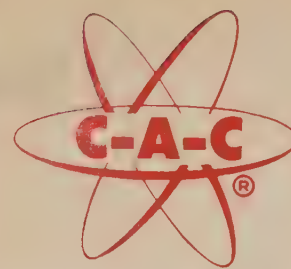
CAC "HS" series provides metal encased, hermetically sealed units complying with MIL specifications. Mounting area minimized—extremely low hum pickup—terminals of proven design using Teflon assure permanent seal at temperature extremes. Rugged construction—convenient mounting facilities. To insure stability, cores are thermo-cycled prior to encasement. Standard inductances in stock.



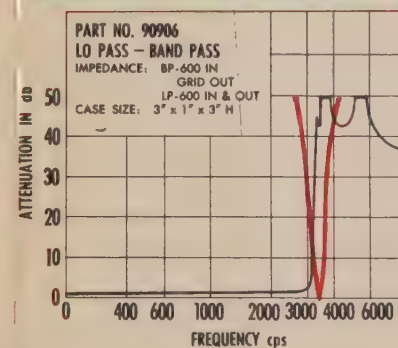
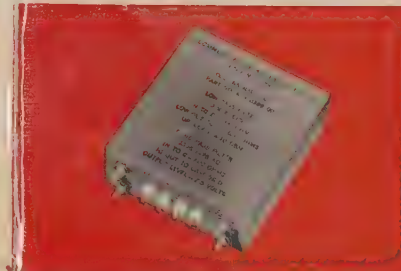
SUBMINIATURE TOROIDS

Uncased, plastic molded and hermetically sealed in three standard core types (others available). Designs for all requirements—for chassis mount or printed circuits.

For the engineer whose design considerations dictate the utmost in electrical performance versus size, CAC's subminiature toroids present the answer.



L-C AND MECHANICAL FILTERS

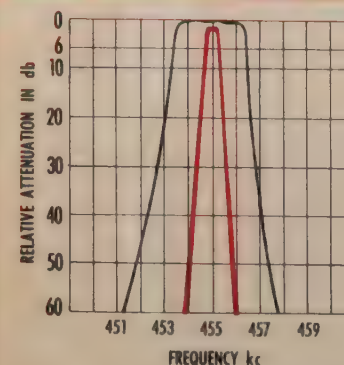
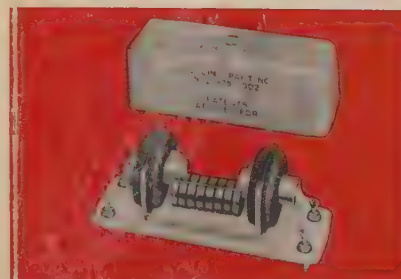


L-C FILTERS

L-C filters utilizing high Q toroidal inductors and high quality capacitors are the heart of these frequency selective components. Recent developments of magnetic materials and highly stable capacitors have extended the useful frequency and temperature range of electrical wave filters. Use of impedance transformations, near unity coupling, and other applications of advanced network theory result in high performance units in small volume packages.

Low pass, high pass, band pass and band stop filters can be designed covering sub audio to over 500kc range. Line, interstage or other impedances can be specified. Filters can be designed for direct paralleling where required. High permeability cases and the closed toroidal form assure low hum pickup. Temperature stabilization on the order of 0.1% frequency can be attained through use of negative TC compensation to offset slightly positive coil and capacitor characteristics.

Depicted response curve is for an integrally packaged low pass—band pass filter employing the latest design and production procedures. This unit uses less chassis area and is an excellent example of subminiature coil usage, impedance transformations, and printed circuitry. Hermetically sealed to meet the military specifications.

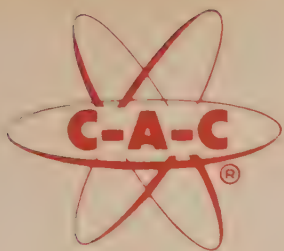


MECHANICAL FILTERS (Developed and mfd. by Collins Radio Co.)

The Mechanical Filter provides far better bandpass selectivity in one small sealed unit than a series of bulky conventional IF transformers. Excellent characteristics allow closer spacing of information channels, lower adjacent-channel interference and improved signal to noise ratios. These Filters have been proven in thousands of military and commercial receivers, transmitters and microwave multiplex systems.

Units are designed for center frequencies of 60 to 600kc and various 6db bandwidths from 300cps to 16kc. In general, bandwidth is limited to 10% of the center frequency. In many types, the 60db bandwidth is only twice the 6db bandwidth. Filters have a frequency shift with temperature of $\pm 10\text{ppm}/^\circ\text{C}$. Normal insertion loss for the filters is 6 to 8db. Most types comply with Mil-E-5400 on shock and vibration.

In receiver IF amplifier design the Mechanical Filter replaces one of the usual IF transformers and is fixed tuned. Preceding or following stages may be coupled with subminiature toroidal transformers using fixed tuning. Variable selectivity is obtained by using two or more Filters and switching connections.



MAGNETIC AMPLIFIERS AND TRANSFORMERS

MAGNETIC AMPLIFIERS

Custom computer amplifiers with high stability and linearity can be designed having single or multiple inputs to your specific needs. Servo drives and relay actuators are also available. Frequency selective networks can be integrally designed to provide additional useful control functions. Proven packaging techniques insure minimum size—proven toroidal construction assures highest performance.

Typical Temperatures..... -60°C. to +150°C.
Typical Line Frequencies..... 60cps to 6000cps

MISSILE POWER TRANSFORMERS

Recommended for supply frequencies above 400 cps and where size performance and reliability are factors. Thin nickel alloy toroidal cores reduce core losses. Toroid structure cures stray field problems.

SEALED MISSILE POWER SUPPLIES combining toroidal power transformers, toroidal filter chokes, hi temp capacitors and silicon rectifiers. These units offer multiple outputs and low ripple. Low stray field of toroidal elements obviate usual internal shielding. Mag regulation where required.

LAMINATED TRANSFORMERS AND INDUCTORS

A complete line of laminated constructed units are now available through CAC. Our highly qualified engineering staff, a well complimented laboratory, humidity controlled production facility with modern manufacturing equipment guarantees conformance with any specifications. Both power and audio transformers employing advanced techniques can be supplied either hermetically sealed or encapsulated to 150° C. ambients. Catalogues, supplied upon request, cover a wide range of standardized designs including omnirange and ILS Filters.

PRECISION RATIO COMPUTER TRANSFORMERS

Toroidal form of construction is ideal for designing precision ratio transformers since the turns of wire are applied to and adjusted on the core. Normal production procedure of zero turn accuracy, high permeability cores, low phase shift, and near unity coupling will yield laboratory quality on any production run. Advanced design and newest packaging methods provide optimum performance with minimum size and rugged construction.



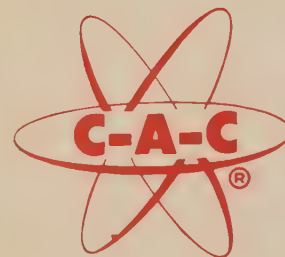
PERMEABILITY-TUNED VFO's (Mfd. by Collins Radio Co.)

Mechanically stable—sealed against atmospheric changes—temperature and voltage compensated. Available as complete packages for incorporation into your equipment. Superior accuracy, stability and linear dial calibration for your transmitters, receivers, test equipment or frequency standards.



AUTOTUNES (Mfd. by Collins Radio Co.)

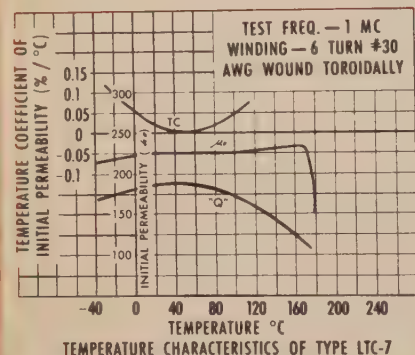
Electro-mechanical position systems. Ideally suited for components requiring rotary or linear motion. Positioning accuracies of 0.05 angular degrees with reset accuracy to 0.0001 inch relative to 1/4 inch shaft size. Designed for the lifetime of any equipment. Fast—versatile—high torque—accurate—dependable.



Communication Accessories Company

A Subsidiary of Collins Radio Company

LEE'S SUMMIT, MISSOURI
PHONE KANSAS CITY Broadway 1-1700



FERRITE CORES (Mfd. by Collins Radio Co.)

Requirements for extreme temperature stability and consistently reproducible cores encouraged the Collins Radio Company to enter the magnetic materials field. Now, after several years of intensive research and development, these cores are available through CAC in many standard or custom forms for all applications. Temperature characteristics developed exhibit 10 times improvement over previous materials. Special saturation and other properties are presently available. Technical bulletins upon request.



HEAT DISSIPATING TUBE SHIELDS (Mfd. by Collins Radio Co.)

Heat treated beryllium copper corrugated liner and socket insert are highly resilient and accommodate wide variations of tube diameter. Base liner reduces bulb temperature in most critical tube area. Interchangeable with standard JAN equipment. Tube cannot work out of socket through long term vibration. Maximum electrostatic shielding.



US-KON INDUSTRIAL HEATING BLANKETS

LET US HELP ENGINEER BETTER HEATING AT LOWER COST INTO YOUR PRODUCT

ARE YOU IN THE REFRIGERATION FIELD? Leading firms such as Larkin, Bush and Bohn, are among the many that use Us-Kon® Heating Blankets to prevent ice formation in drain pans of unit coolers. Us-Kon also does many other jobs in refrigeration.

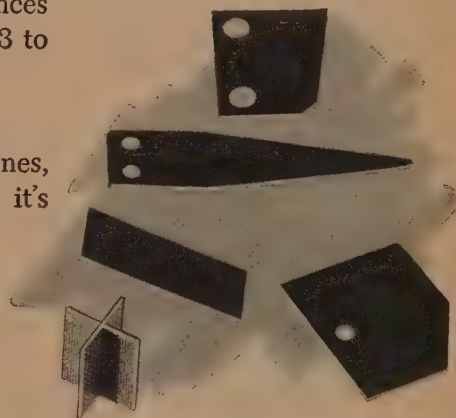


Drainpan of unit cooler with Us-Kon heating blanket in place.

ARE YOU IN PLASTIC LAMINATION? Us-Kon Blankets are used on hot presses to speed up production, save working space and capital outlays. In some instances the Us-Kon does as much work as equipment that might cost 33 to 50 times as much.

WHAT ABOUT FURNITURE VENEERING? For rapid curing of glue lines, veneering of wooden products of flat or curved construction, it's flexible Us-Kon Electrical Blankets.

THE AMAZING US-KON ELECTRICALLY CONDUCTIVE CARDS are used in radar micro-wave assemblies to control the attenuation of electromagnetic energy by such concerns as Convair and Texas Instrument.



Examples of Us-Kon Conductive Cards.

UNIFORM HEAT OVER LARGE OR SMALL AREAS Us-Kon conductive rubber electrical heating blankets give quick, uniform heat. They are less than $\frac{1}{8}$ " thick, weigh less than 8 oz. per square foot and are in sizes from 1" to 56" wide and 6" to 50 ft. or more in length. They are so flexible they conform to curves of as little as $\frac{1}{4}$ " radius. There are no wires. Temperature can be thermostatically controlled.

Tell us the type of your product or application. Write United States Rubber, Mechanical Goods Division, Rockefeller Center, New York 20, N. Y.

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

Mechanical Goods Division

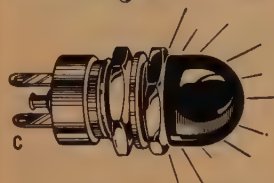
United States Rubber

In automation...indication...miniaturization

PILOT LIGHTS

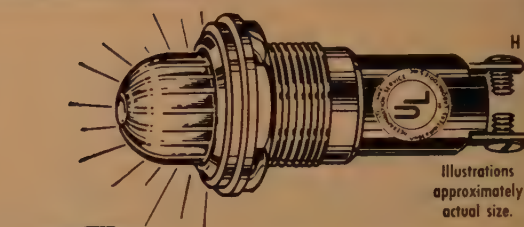
perform vital functions...Assure maximum dependability—specify:

DIALCO®

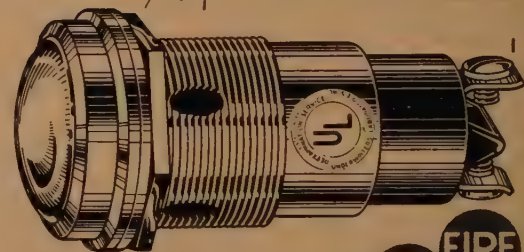


THE COMPLETE LINE designed to meet every requirement. *Dialco* offers the most extensive selection of Pilot Lights — from sub-miniature types to giant units with 1½" lenses. Special features such as MIL spec insulation, water-tightness, special finishes, etc. can be furnished as standard. For NEON lamps, *Dialco* provides Pilot Lights with built-in resistors (patent #2,421,321) for operation on 105-125 V, or 210-250V; also simple external resistors for higher voltages.

Every assembly is available complete with lamp: Assure complete satisfaction — let the *Dialco* Engineering Dept. assist in selecting the right lamp and most suitable pilot light for your needs.



Illustrations approximately actual size.



DISCS tell the story!

In both military and civilian equipment, Discs inserted behind lenses can be used to deliver specific messages. A significant safety feature!



Sub-Minature Units: (A) No. TT-51; No. TT-51A with No. 327 lamp. For edge lighting. Red or other color filters, black top... (B) No. 8-3730-111, for MIL-P-7788 panel... (C) No. 101-3830-951 two-terminal unit with omnidirectional lens... (D) No. 4-1930, light shield... (E) Patented "Press-to-Test" unit with dimming or non-dimming lens cap... (F) No. 8-1930-111, non-dimming... (G) No. 11-1930-111, mechanical dimmer; No. 3-1930-111, polaroid dimmer.

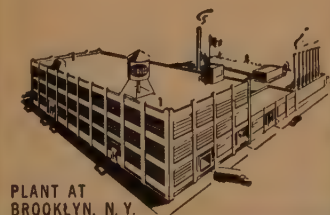
(H) No. 521308-991, for neon lamps, with multi-vue cap... (I) No. 313502-111, a 1" unit with friction cap.

SAMPLES ON REQUEST — at once — no charge

FREE: Brochure on "Selection and Application of Pilot Lights."

Contains consolidated information on pilot light assemblies and small lamps, working tables, data, photographs, and product information.

Also write for file of latest Catalogues

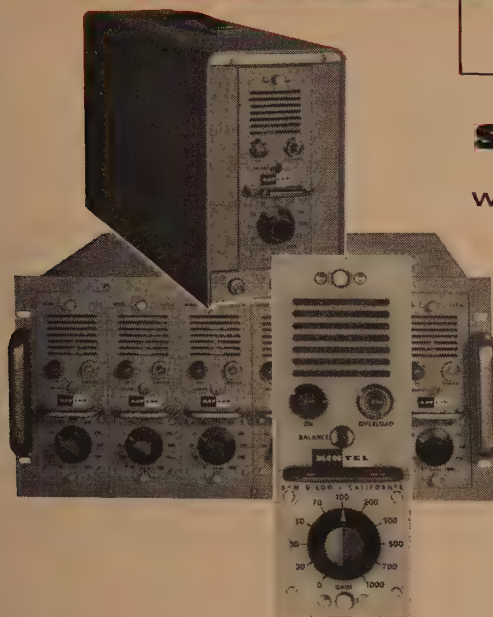


PLANT AT
BROOKLYN, N. Y.

Foremost Manufacturer of Pilot Lights

DIALIGHT
CORPORATION

60 STEWART AVE. • BROOKLYN 37, N. Y. • HYACINTH 7-7600



STABILITY



locked in!

WITH CHOPPER AMPLIFIERS

- ± 2 Microvolt Drift
- Extremely Low Noise
- High Input Impedance
- Low Output Impedance
- ± 35 Volt, ± 40 ma Output
- 10 Accurate Gain Ranges
- 6 Unit Rack-Mounting
- Integral Power Supply

AMPLIFY MICROVOLTS WITH STABILITY

KIN TEL Model 111A amplifiers provide the lowest drift of any commercially available wideband DC amplifiers. They utilize KIN TEL's proven chopper amplifier circuitry to provide unsurpassed dynamic performance — unaffected by load or gain changes.

OPERATIONAL AMPLIFIER

The Model 111AO is an operational version of the Model 111A amplifier. In this unit, the "0" gain position is an open loop position, and the user may employ his own external networks to provide up to 100% resistive or capacitive feedback around the amplifier. By choosing the proper attenuator, input, and feedback components the user may obtain whatever amplifier characteristics are desired, such as limiting the gain or bandwidth, performing integrations, and generating complex linear transfer functions.

FLOATING INPUT AMPLIFIER

The Model 111AF is a floating input version of the Model 111A which permits its use with transducers, particularly thermocouples, which are grounded at the pickup location. The Model 111AF differs from the Model 111A only in that it eliminates the problem of ground loops resulting from grounding at both the amplifier and the pickup location.

APPLICATIONS

These amplifiers make dynamic, high-accuracy, low-level DC instrumentation systems practical. In comparison to AC systems, DC strain gage systems offer greater accuracy, wider bandwidth, operational simplicity, reduced maintenance, and eliminate capacitive balance problems. In one installation alone, KIN TEL DC amplifiers have logged over a million hours of accurate, trouble-free operation. The Model 111 series is ideally suited to telemetering, data reduction and all types of instrumentation facilities utilizing transducer measuring systems. They are excellent as scope preamplifiers, recorder and galvanometer driver amplifiers, or general purpose laboratory amplifiers.

SPECIFICATIONS

Gain (Phase Inverting).....	0, 20, 30, 50, 70, 100, 200, 300, 500, 700, 1000
Gain Accuracy.....	$\pm 1\%$, DC to 2 KC; $\pm 3\%$, DC to 10 KC; $\pm 30\%$, DC to 40 KC
Input Impedance.....	100,000 ohms
Output Impedance.....	Less than 1 ohm in series with 25u
Equivalent Input Drift.....	$\pm 2\text{uv}$ when used with regulated line voltage, $\pm 10\%$ change in AC input causes less than $\pm 5\text{uv}$ change. 10 minute warm-up period required.
Equivalent Input Noise.....	0 to 3 cps, less than 5uv peak to peak. 0 to 750 cps, less than 5uv RMS. 0 to 50 kc, less than 12uv RMS.
Chopper Intermodulation.....	Less than 0.1%
Maximum Output Cable Capacity.....	0.02uf (external)
Linearity.....	Better than 0.1% to 2KC
DC Output Capability.....	0 to 35v where $R_L > 1000$ ohms 0 to 40 ma where R_L is 10 to 400 ohms
Frequency Response.....	0.3 db ($\pm 3\%$) DC to 10KC, less than 3 db down at 40KC
Rise Time.....	Less than 10 u sec.
Phase Shift.....	Less than 5° to 2KC
Overload Recovery Time.....	Less than 3 seconds
Dimensions:	
Amplifier Unit.....	2 $\frac{7}{8}$ " wide, 7 $\frac{5}{8}$ " high, 14 $\frac{5}{8}$ " deep
Unit in Cabinet.....	5 7/16" wide, 10" high, 18 $\frac{1}{4}$ " deep
Rack Adaptor Module for 6 Units.....	19" wide, 8 $\frac{3}{4}$ " high, 18 $\frac{1}{4}$ " deep (Width of cabinet behind 19" front panel is 17 $\frac{5}{8}$ ")
Net Weight (Amplifier).....	11 pounds
Price:	
111A Amplifier.....	\$550.00*
111AO Amplifier.....	\$560.00*
111AF Amplifier.....	\$575.00*
111CF Cabinet for single 111A, AO, or AF Amplifier, with fan and connector.....	\$105.00
111RF Rack Adaptor Module for six 111A, AO, or AF Amplifiers, with fans and connectors.....	\$200.00

* Amplifier must be used with cabinet or rack adaptor module.

Representatives in all major cities — Write today for literature or demonstration.

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MODEL 203

STABILITY



Locked in!

WITH CHOPPER AMPLIFIERS

The ONE Universal Meter

MICROVOLTS TO KILOVOLTS - MICROAMPS TO MILLIAMPS

- 100uua to 100ma Full Scale
- 100uv to 1000v Full Scale
- High, Fixed Input Impedance
- 15 Voltage, 10 Current Ranges
- Zero Center Meter
- Use as 80db DC Amplifier

The Model 203 microvolt-ammeter-amplifier utilizes KIN TEL's unique chopper circuit to provide accurate measurement of DC from 10uv to 1000 volts or 10uua to 100ma. A zero-center, mirrored scale provides instant polarity indication. It may also be used as an exceptionally stable

DC amplifier with up to 80db gain, high input impedance, low output impedance, and only 10uv drift. The Model 203 is the ideal general purpose laboratory meter, production test set, null meter, or amplifier for extending the range of recording instruments.

SPECIFICATIONS

Voltage Range (full scale)	100uv to 1000v
Current Range (full scale)	100uua to 100ma
Input Impedance	10 megohms below 10 mv, 30 megohms at 30 mv, 100 megohms above 30 mv
Impedance Accuracy	$\pm 1.5\%$
Accuracy on all Ranges	$\pm 3\%$ of full scale

Maximum Gain as Amplifier	80db $\pm 1.5\%$
Output Rating	1 v across 1000 ohms
Output Impedance	Less than 2 ohms
Drift (after 15 min. warm-up)	10uv equivalent input
Price	\$550.00



MODEL 203AR

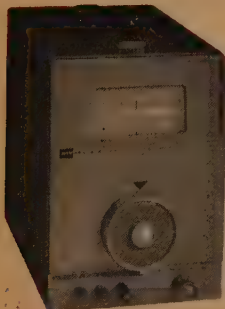
The Model 203AR is an extremely compact, 5 1/4" x 19", rack mountable version of the Model 203 microvolt-ammeter-amplifier. Specifications and operating features are the same as the Model 203 except current ranges are 1 milli-microamp to 1 amp in 19 ranges and, as an amplifier, output capability is 1 volt output into 500ohms. PRICE \$550.00.

The Model 202B is a combination microvoltmeter and amplifier for use where the lowest voltage range and the current ranges of the Model 203 are not required. Fourteen DC voltage ranges cover from 300 microvolts to 1000 volts full scale.

Drift, after 15 minute warm-up, is less than 15 microvolts equivalent input; maximum gain as a DC amplifier is 70 db; and output capability is 1 volt across 2000 Ω . Other operating features are the same as the Model 203. PRICE \$350.00.



MODEL 202B



MODEL 204A

New Electronic Galvanometer

- DC Null Detector
- Microvoltmeter
- Micro-Microammeter
- Microvolt Level DC Amplifier

Functionally equivalent to suspension galvanometers, the Model 204A is ideal for DC null detection in low-level bridge and potentiometer circuits, production testing, or low-level DC amplification. KIN TEL's chopper stabilized, all transistor circuit combines extreme sensitivity with immunity to shock, microphonics or overload. Current sensitivity is 20 times greater than high quality, mechanical current galvanometers. As a voltage galvanometer, its extremely high power sensitivity makes the 204A superior to low impedance moving coil instruments.

SPECIFICATIONS

Sensitivity	$\pm 10uv$ to ± 10 volts or $\pm 0.001ua$ (20uua/div.) to ± 1 ma full scale. Positions provided for shorted input (Zero) and open input (Inf.)
Power Sensitivity	10 ⁻¹⁴ watts, full scale
Input Resistance	Constant 10,000 ohms except on "Zero" and "Inf."
Response Time	Approx 2 sec FS
Source Resistance	No restrictions
Zero Adjust	$\pm 15uv$ equivalent input on 10 and 100 uv ranges; $\pm 15\%$ of FS on other ranges.
Zero Drift	< 2 microvolts

Output as amplifier	± 1 volt at 1 ma (Inverting)
Noise Level	1uv P-P equivalent input on 10uv range
Accuracy	3% of FS on 2 lower ranges, 4% above
Isolation	Very high isolation from line and chassis
Over-Range	100 volts on highest range, 100 times full-scale on other ranges.
Dimensions:	
204A	9 1/2" H x 6 1/2" W x 12" D
204AR	5 1/2" H x 19" W x 11" D
Price	\$325.00



STABILITY

*Locked in!*

WITH CHOPPER AMPLIFIERS



MODEL 301

DC SUPPLIES PROVIDE STANDARD CELL ACCURACY
0.01% Stability - 0.002% Regulation - Lowest Ripple

New DC Standard and Nullmeter

The Model 301 is a combination variable DC secondary standard, DC voltmeter, and high accuracy null voltmeter. KIN TEL's chopper stabilized circuit constantly compares the output with an internal standard cell to provide stability, accuracy, and excellent dynamic characteristics. Excellent for production calibration of precision measuring instruments and power supplies or as a versatile precision reference for laboratories.

SPECIFICATIONS

Output Voltage.....	1.00 to 501 volts, Dial Selection
Output Current.....	0 to 20 ma
Supply Output & DC Input Meter Ranges.....	± 500 , 50 volts
Null Meter Ranges.....	± 50 , 5, 0.5, 0.05 volts
Long Time Stability.....	± 100 parts per million
Short Time Stability (several hours).....	± 50 parts per million
Output Voltage Calibration.....	$\pm 0.02\%$ or 2mv
Output Hum and Noise.....	Less than 100uv RMS

Load Regulation.....	0.002% no load to full load
Line Regulation.....	0.002% for $\pm 10\%$ line voltage change
Meter Accuracy.....	4% of full scale
DC Output Impedance.....	0.01 ohm
Response Time.....	0.2 millisecond
Net Weight.....	29.5 pounds
Price.....	\$625.00

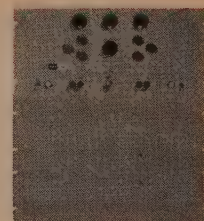
SPECIFICATIONS

	Model M30B-1Z	Model M10A-10*	Model M100A-20*
Long Time Stability	$\pm 0.01\%$	$\pm 0.01\%$	$\pm 0.01\%$
Regulation for $\pm 10\%$ line voltage change	0.002% or 0.5mv	$\pm 0.01\%$ of FS	$\pm 0.01\%$ of FS
Hum and Noise	Less than 0.5mv	Less than 2mv	Less than 2mv
Output Voltage	1.02-302	0-100	0-1000
Output Current	0-20ma	0-100ma	0-200ma
Calibration Tolerance	0.02%	0.05%	0.05%
Price	\$495.00	\$1190.00	\$1950.00

*Both current and voltage regulated.

Meter Calibrators

Meter calibrators utilize KIN TEL's unique chopper circuit to continuously compare the output against internal standard cell, providing unequalled stability, accuracy, and dynamic characteristics—regardless of line or load changes. Calibrated dials permit instant voltage selection. Excellent for all laboratory and production calibration.



MODEL M100A-20

Power Supplies

Merely dial the voltage desired, and, regardless of load changes, KIN TEL absolute DC power supplies instantly provide the desired voltage to an accuracy normally attained only with standard cells. Ideal in the design of complex electronic circuitry or wherever a precision voltage source with unequalled dynamic characteristics is required.

SPECIFICATIONS

Model	Voltage Range	Current 0.0 to	Filament Current Amps (6.3V AC)	Price
B-200	2-32	2 amp	0	\$1,045.00
B-25†	1.02-302	250 ma	5	725.00
B-50†	1.02-302	500 ma	10	830.00
B-100†	1.02-302	1 amp	10	940.00
B-25†	1.02-302	250 ma	5	780.00
B-50†	1.02-502	500 ma	10	940.00
B-100†	1.02-502	1 amp	10	1,080.00
DB-50	1.02-1002	500 ma	0	2,050.00
DD-2	100-2010	20 ma	0	1,725.00

†Most models also available as fixed supplies, factory preset to desired output. Provide variable bias 0 to -150v at 10 ma.

Long Time Stability.....	± 100 parts per million
Short Time Stability.....	± 50 parts per million
Output Voltage Calibration.....	$\pm 0.02\%$ or 5 millivolts
Output Voltage Variation.....	Variable in 100, 10 and 1v steps; between 1v steps with a potentiometer
Output Impedance.....	DC impedance, less than 0.01 ohm, AC impedance, up to 200 kc, less than 0.5 ohms
Output Hum and Noise.....	Less than 0.5 millivolt
Load Regulation Factor.....	$\pm 0.01\%$
Line Regulation Factor.....	$\pm 0.002\%$ or 0.5 millivolt
Response Time.....	0.2 millisecond

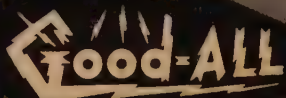
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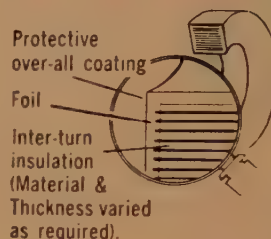


FLIGHTWEIGHT

FOIL WOUND COILS

Higher Operating Temperatures, Smaller Size and Lighter Weight are the outstanding characteristics of GOOD-ALL Foil Wound Coils. Foil Construction permits maximum design flexibility, eliminates Hot Spots and offers increased resistance to shock and vibration.

- ✓ **TEMPERATURE**—as high as 200°C
- ✓ **SIZE**—50% SMALLER than equivalent wire wound coils
- ✓ **WEIGHT**—up to 80% LIGHTER
- ✓ **MECHANICAL**—any configuration—drilled or slotted
- ✓ **THERMAL PROPERTIES**—each turn is exposed



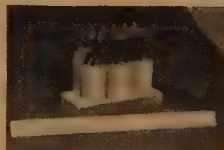
FOIL WINDING TECHNIQUES lend themselves more readily to low voltage, high current applications. Coils may be wound from less than 1" to more than 7' in diameter. Foil designs make possible many coils not now available in wire wound designs. When replacing wire wound coils foil is applicable only for wire sizes of 26 AWG and larger. Coils may be housed or potted. Each turn is exposed to a cooling medium, eliminating hot spots and making higher operating current possible.

ALUMINUM FOIL is suggested for applications requiring medium flux density from a moderate amount of power. Substantial Weight and Volume Savings are possible.

COPPER FOIL is suggested where higher flux densities and minimum volume are required.

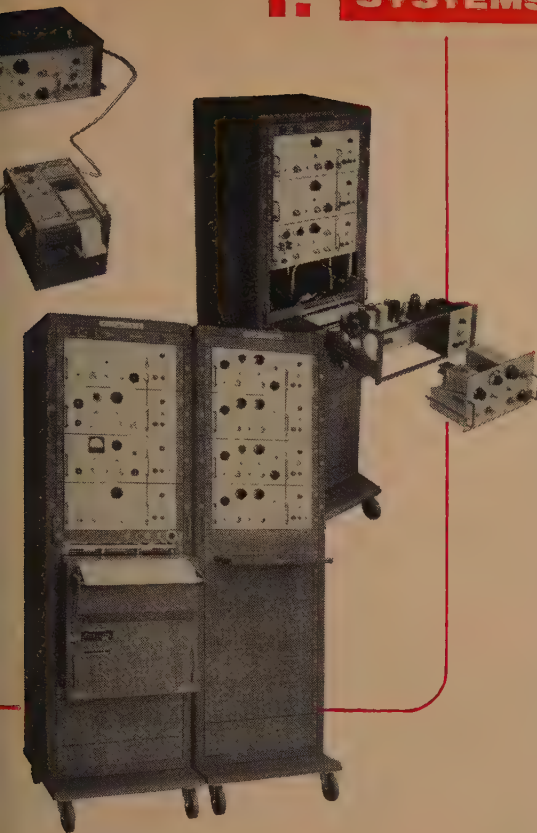
Initial costs of foil wound coils are from one to three times greater than equivalent wire wound coils, although ultimate engineering and production savings have been proven thru reduced packaging costs and improved engineering designs.

Our engineers are ready to work with you on any component problem or application. Write, wire or phone today for more information.



GOOD-ALL ELECTRIC MFG. CO., OGALLALA, NEBRASKA
ELECTRICAL-MECHANICAL DIV. • TWX 8242 • PHONE 900

1. SYSTEMS



BASIC "150" assemblies housed in either vertical mobile cabinets or separate portable cases are available in 1-, 2-, 4-, 6- and 8-channel models. Each is equipped with driver amplifiers of current feedback design and regulated power supplies for *each* channel, and a recorder featuring *nine* extremely accurate paper speeds on 2- to 8-channel models, five on single channel units. Appropriate plug-in preamplifiers quickly and efficiently equip a basic assembly for recording virtually any 0-100 cps phenomena.

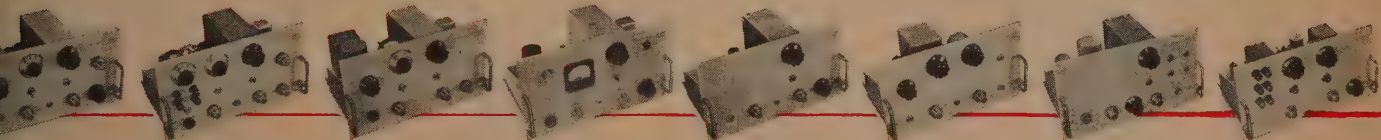
new 6- and 8-channel analog readout systems

In addition, complete Sanborn systems from 2- to 8-channels are available for recording analog computer outputs. These are equipped with dual-channel DC amplifiers for single-ended or push-pull signals — input impedance 5 megohms each input lead to ground — drift less than 0.5 mm/hr. — frequency response down 2 db at 60 cycles for all amplitudes to 4 cm peak to peak. Newest of the computer readout recorders are the 6- and 8-channel console systems (8-channel illustrated). The Model 183 Programmer in a Model 184 case, shown top right, is optional for use with the 6- and 8-channel consoles. The Programmer automatically turns on chart drive, feeds calibrated signals to all channels, reads computer DC levels, determines the length of record, and shuts off the paper drive.



SANBORN

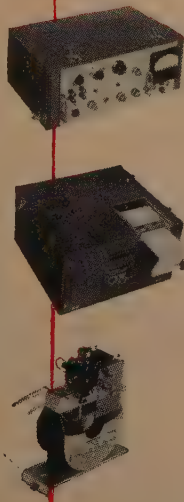
OSCILLOGRAPHIC RECORDING EQUIPMENT



2. PREAMPLIFIERS

3. UNIT INSTRUMENTS

Sanborn Preamplifiers and Recorders, as various other units, are available for specialized applications or as "original equipment" in other status. Instruments include the Model 600/700 Wide Band Driver Amplifier Power Supply, for use with low power galvanometer elements, a 'scope and/or meter. When equipped with suitable preamplifier, this amplifier provides a stable indicator for strain, force, pressure, temperature, AC watts, audio, etc. Other units include the Model 600 Master Oscillator Power Amplifier, Model 150-3100 Triplexer; Model 601 102 galvanometers; Model 150-2900 Channel DC Amplifier.



A choice of *twelve* "150 Series" plug-in preamplifiers is now available, to equip systems for any of numerous recording problems. Improved control of input signals results from attenuator ratios of 1, 2, 5, etc., and calibrated zero suppression on AC-DC, Carrier, and Low Level DC Coupling, Frequency Meter, and Chopper Stabilized DC models. Other "150" preamplifiers include: Servo Monitor, Log-Audio, AC Wattmeter, RMS Volt/Ammeter, 400 cycle Frequency Deviation, and Triplexer.

Added to these three aspects of Sanborn Oscillographic Recording Equipment are the basic advantages of inkless recording in true rectangular coordinates, to provide accurate, easily interpreted records; high torque galvanometer (10 ma develops 200,000 dyne cm.); one percent linearity resulting from current feedback driver amplifiers and high torque galvanometers (maximum error is 1/4 mm in middle 4 cm of chart, 1/2 mm across entire chart); controls for timing, manual and remote coding.

Take advantage of the scope and flexibility of Sanborn equipment to answer your recording requirements. Sanborn engineers will be glad to provide further information and application assistance whenever you wish. Contact your local representative or write to the main office below.

SANBORN COMPANY
INDUSTRIAL DIVISION
175 WYMAN ST. WALTHAM 54, MASS.

ALLIED'S

HERMETICALLY

SEALED

RELAYS



MECHANICAL SPECIFICATIONS										ELECTRICAL SPECIFICATIONS			
ALLIED TYPE	TYPE OF TERMINAL	OUTLINE DIMENSIONS				WT. (OZ.)	MOUNTING DIMENSIONS		TYPE MOUNTING	CONTACT RATING (AMPS.)	CONTACT FORM MAX.	COIL DATA MAX. D.C. OHMS	OPER. AC
ASH	SOLDER	2 1/4	2 1/4	1 1/4	1 1/4	3.5	.938	1.187	(3)#6-32 Studs	5	SPDT	3500	AC
ASHO	PLUG-IN	3	2 1/4	1 1/4	1 1/4	4			Octal Plug-in	5	SPDT	3500	AC
BJHR	SOLDER	3 1/2	2 1/2	1 3/4	1 1/2	7.5	.875	1.625	(3)#6-32 Studs	5	DPDT	3700	AC
BJHRO	PLUG-IN	3 3/4	3 1/4	1 3/4	1 1/2	7.5			Octal Plug-in	5	DPDT	3700	AC
BOH	SOLDER	3 1/2	2 1/2	2 1/4	DIA.	7.5	1.856	1.856	(4).206 Dia. Holes	10	DPDT	2675	AC
BOHO	PLUG-IN	3 3/4	3	2 1/4	DIA.	8			Octal Plug-in	5	DPDT	2675	AC
BOHR	SOLDER	3 1/4	2 1/4	1 1/4	1 1/4	8.5	1.250	1.250	(3)#8-32 Studs	10	DPDT	2675	AC
BOHRO	PLUG-IN	3 1/2	2 1/2	1 1/4	1 1/4	8.5			Octal Plug-in	10	DPDT	2675	AC
BOYH	SOLDER	3 1/2	2 1/2	2 1/4	DIA.	8.5	1.856	1.856	(4).206 Dia. Holes	10	DPDT	10,000	DC
BOYHO	PLUG-IN	3 3/4	3"	2 1/4	DIA.	8.5			Octal Plug-in	5	DPDT	10,000	DC
BOYHR	SOLDER	3 1/4	2 1/4	1 1/4	1 1/4	8.5	1.250	1.250	(3)#8-32 Studs	10	DPDT	10,000	DC
BOYHRO	PLUG-IN	3 1/2	2 1/2	1 1/4	1 1/4	8.5			Octal Plug-in	10	DPDT	10,000	DC
CNAH	SCREW	4 1/2	3 3/4	2 1/2	2 1/2	22	1 1/4	2"	(3)#10-32 Studs	50	SPST	600	AC
CH	SOLDER	2 3/4	1 3/4	1 1/4		5	1.187	1.268	(3) #6-32 Studs	10	4PDT	525	DC
DSHR	SOLDER	3 3/4	3 1/4	2 1/4	1 1/2	9.5	.687	1.750	(3)#8-32 Studs	5	DPDT	8,000	DC
KH-3-1D	PLUG-IN	1 3/4	5/4	3/4	4/4	0.33			7 Pin Plug-in	1/2	SPDT SPST NO	1,500	DC
KH-3-2D	PLUG-IN	1 3/4	5/4	3/4	4/4	0.33			7 Pin Plug-in	1/2	SPDT SPST NC	1,500	DC
KH-6C	PLUG-IN	1 3/4	5/4	.396	.800	0.33			8 Pin Plug-in	1/2	DPDT	5,000	DC
LKH-6D	SOLDER	3 1/4	3 1/4	1 1/4	1 1/4	8.5	1.375	1.500	(3)#6-32 Studs	2	6PDT	11,000	DC
LKH-4C	SOLDER	3 1/4	2 1/4	1 1/4	1 1/4	6	.938	1.187	(3)#6-32 Studs	2	4PDT	11,000	DC
LKHO	PLUG-IN	3 1/4	3"	1 1/4	1 1/4	5.5			Octal Plug-in	2	DPDT	11,000	DC
MEH-6	SOLDER	2 3/4	1 3/4	1 1/4	1"	3	.672	1.047	(3)#6-32 Studs	5	DPDT	1330	AC
MEHG	PLUG-IN	2 3/4	1 3/4	1 1/4	1"	3.5	.750	1.125	Note 1 (3)#6-32 Studs	5	DPDT	1330	AC
MEHX	SOLDER	2 3/4	2 1/4	1 1/4	1 1/4	5.3	.938	1.187	Note 2 (3)#6-32 Studs	5	4PDT	7260	AC
MH-6D	SOLDER	1 3/4	1 3/4	1 1/4	DIA.	1	CTR/CTR .875		(2) Holes .125 Dia.	2	DPDT	15,900	DC
MH-12	SOLDER	1 3/4	1 3/4	1 1/4	DIA.	2.5	CTR/CTR 1.406		Note 3 (2)#6-32 Studs	2	4PDT	16,000	DC
MH-18	SOLDER	1 3/4	1 3/4	1 1/4	DIA.	4	CTR/CTR 1.562		Note 3 (2)#6-32 Studs	2	6PDT	22,100	DC
MHT-6D	SOLDER	2 1/4	1 1/4	1 1/4	DIA.	3	CTR/CTR .625		Note 3 (2)#6-32 Studs	2	4PDT	16,000	DC
MHT-18	SOLDER	2 1/4	1 1/4	1 1/4	DIA.	4.5	CTR/CTR .625		Note 3 (2)#6-32 Studs	2	6PDT	22,100	DC
MHK-12	SOLDER	1 1/4	1 1/4	1 1/4	DIA.	3.5	.938	1.187	(3)#6-32 Studs	2	4PDT	16,000	DC
MHUO-12	PLUG-IN	1 1/4	1 1/4	1 1/4	DIA.	2.5	CTR/CTR 1.406		Note 4 (2)#6-32 Thd.	2	4PDT	16,000	DC
MHLO-12	PLUG-IN	1 1/4	1 1/4	1 1/4	DIA.	2.5	CTR/CTR 1.531		Note 4 (2)#10-32 Thd.	2	4PDT	16,000	DC
MHUO-18	PLUG-IN	1 1/4	1 1/4	1 1/4	DIA.	4.0	CTR/CTR 1.562		Note 4 (2)#6-32 Thd.	2	6PDT	22,100	DC
MHLO-18	PLUG-IN	1 1/4	1 1/4	1 1/4	DIA.	4.0	CTR/CTR 1.687		Note 4 (2)#10-32 Thd.	2	6PDT	22,100	DC
*MHJ-12	SOLDER	1 3/4	1 3/4	1 1/4	DIA.		CTR/CTR 1.406		(2)#6-32 Studs	2	4PDT	16,000	DC
*MHJ-18	SOLDER	1 3/4	1 3/4	1 1/4	DIA.		CTR/CTR 1.562		(2)#6-32 Studs	2	6PDT	22,100	DC
*MHY-12	SOLDER	1 3/4	1 3/4	1 1/4	DIA.		CTR/CTR 1.562		(2)#6-32 Studs	10	4PDT	22,100	DC
PBHW-6	SOLDER	2 3/4	2 1/4	1 1/4	1 1/4	6	CTR/CTR 1.468		Note 3 (2)#6-32 Studs	10	DPDT	380	AC
PBH-6	SOLDER	2 3/4	2 1/4	1 1/4	1 1/4	6	1.218	1.218	(4)#6-32 Studs	10	DPDT	380	AC
PBH-9	SOLDER	2 3/4	2 1/4	1 1/4	1 1/4	6	1.218	1.218	(4)#6-32 Studs	10	3PDT	380	AC
PBH-12	SOLDER	2 3/4	2 1/4	1 1/4	1 1/4	6.5	1.218	1.218	(4)#6-32 Studs	10	4PDT	380	AC
PBHN-6	PLUG-IN	3 3/4	2 3/4	1 1/4	1 1/4	9	Note 3		"AN" CONNECTOR	10	DPDT	380	AC
PBHN-9	PLUG-IN	3 3/4	2 3/4	1 1/4	1 1/4	9	Note 3		"AN" CONNECTOR	10	3PDT	380	AC
PBHN-12	PLUG-IN	3 3/4	2 3/4	1 1/4	1 1/4	9.5	Note 3		"AN" CONNECTOR	10	4PDT	380	AC
PDH-6	SOLDER	2 1/4	2 1/4	1 1/4	1 1/4	6	.938	1.187	(3)#6-32 Studs	2	DPDT	475	AC
PDH-9	SOLDER	2 1/4	2 1/4	1 1/4	1 1/4	6	.938	1.187	(3)#6-32 Studs	2	3PDT	475	AC
PDH-12	SOLDER	2 1/4	2 1/4	1 1/4	1 1/4	6.5	.938	1.187	(3)#6-32 Studs	2	4PDT	475	AC
PDHG	PLUG-IN	2 1/4	2 1/4	1 1/4	1 1/4	6.5	Note 1		14 Pin Plug (3)#6-32 Studs	2	4PDT	475	AC
POHR-9	SOLDER	3 1/2	3 1/2	1 1/4	1 1/4	12	1.375	1.437	(3)#8-32 Studs	10	3PDT	870	AC
POHR-12	SOLDER	3 1/2	3 1/2	2 1/4	2 1/4	13.5	1.625	1.812	(3)#8-32 Studs	10	4PDT	870	AC
POHRO-12	PLUG-IN	4 1/4	3 1/2	2 1/4	2 1/4	13.5			14 Pin Plug-in	10	4PDT	870	AC
PRH	SOLDER	3 3/4	2 3/4	3 1/4	1 1/2	9.5	CTR/CTR 2.687		(2) .161 Dia. holes	10	4PDT	620	DC
RSH-3D	SOLDER	2 3/4	1 1/4	3/4	DIA.	2.0	CTR/CTR .973		(2).125 dia. clearance holes	2	SPDT	14,000	DC
RSH-6D	SOLDER	2 3/4	1 1/4	3/4	DIA.	2.0	CTR/CTR .973		(2).125 dia. clearance holes	2	DPDT	14,000	DC
RSHO-6D	8 PIN PLUG-IN	2 3/4	1 1/4	3/4	DIA.	2.0	CTR/CTR .973		8 pin plug-in+keyway+(2).125 dia. clearance holes	2	DPDT	14,000	DC
RSH-3D	7 PIN PLUG-IN	2 1/4	1 3/4	3/4	DIA.	2.0			7 Pin Plug-in	2	SPDT	14,000	DC
SKH	SOLDER	2 3/4	2 1/4	1 1/4	1 1/4	4.5	.938	1.187	(3)#6-32 Studs	2	4PDT	4,500	DC
SKHO	PLUG-IN	3	2 1/4	1 1/4	1 1/4	5			Octal Plug-in	2	DPDT	4,500	DC
SKHW	SOLDER	2 3/4	2 1/4	1 1/4	1 1/4	4.5	.938	1.187	Note 3 (3)#6-32 Studs	3	4PDT	4,500	DC
SKHG	PLUG-IN	2 3/4	2 1/4	1 1/4	1 1/4	5	Note 1		14 Pin Plug-in(3)#6-32 Studs	2	4PDT	4,500	DC
SKHN	PLUG-IN	3 3/4	2	1 1/4	1 1/4	6.8	Note 3		"AN" CONNECTOR	2	4PDT	4,500	DC
SWHO	PLUG-IN	2 1/4	2 1/4	1 1/4	1 1/4	5.5			Octal Plug-in	2	DPDT	13,800	DC
SWH	SOLDER	2 1/4	2 1/4	1 1/4	1 1/4	5.5	.938	1.187	(3)#6-32 Studs	2	DPDT	13,800	DC

* NOTE: MHJ type relays are available in all MH type mountings.

NOTE 1: Use 14 pin miniature socket

NOTE 2: Two Relays in one enclosure

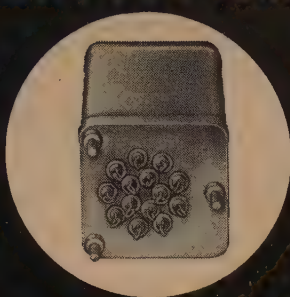
NOTE 3: Air Force approved

NOTE 4: Sockets available from Allied Control

TYPES OF MOUNTINGS AND TERMINALS



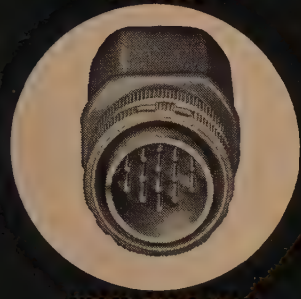
2 STUDS



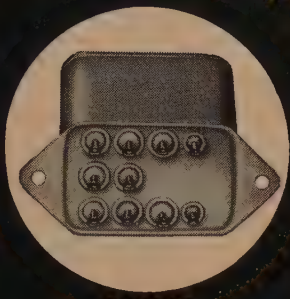
3 STUDS



4 STUDS



"AN" PLUG-IN



2 HOLE

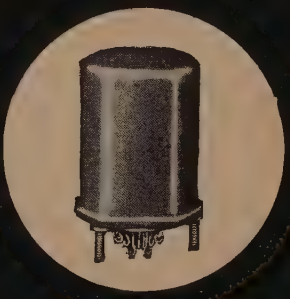
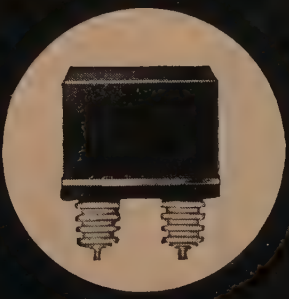
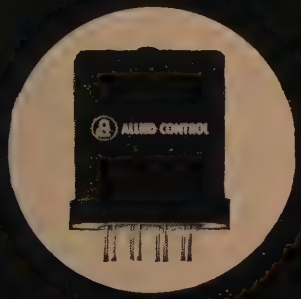
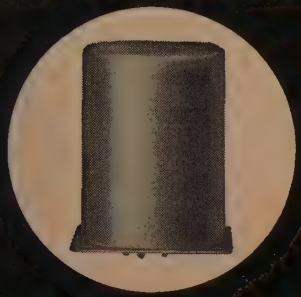


OCTAL PLUG



14 PIN PLUG-IN

TYPES OF HOUSINGS



OUTLINE
DIMENSIONS:



OCTAGON



RECTANGLE
OR SQUARE



ROUND



SIDE VIEW

TYPE TERMINALS:



SOLDER TERMINAL



OCTAL 8 PIN PLUG



"AN" CONNECTOR



14 PIN PLUG-IN

MOUNTING DIMENSIONS:



ALLIED CONTROL

ALLIED CONTROL COMPANY, INC., 2 EAST END AVENUE, NEW YORK 21, N.Y.



TETRODES

4-65A	4W300B
4-125A	4W20000A
4-250A	4X150A
4-400A	4X150D
4-1000A	4X150G
4CX150G	4X250B
4CX250K	4X250F
4CX250M	4X500A
4CX300A	4X500F
4PR60A	4CX5000A

TETRODES

EIMAC TUBE TYPE

4-65A
4-125A
4-250A
4-400A
4-1000A*

4CX150G*
4CX250K*
4CX250M*
4CX300A*
4PR60A*
4W300B**
4W20000A**
4X150A*
4X150D*
4X150G*
4X250B*
4X250F*
4X500A*
4X500F*
4CX5000A*

MAXIMUM RATINGS					ELECTRICAL CHARACTERISTICS		
Plate Dissipation Watts	Plate Voltage	Plate Current Milliamperes	Grid Dissipation Watts	Screen Voltage	Screen Dissipation Watts	Filament, Volts	Filament, Amperes
65	3000	150	5	400	10	6.0	3.50
125	3000	225	5	400	20	5.0	6.50
250	4000	350	10	600	35	5.0	14.50
400	4000	350	10	600	35	5.0	14.50
1000	6000	700	25	1000	75	7.5	21.00
150	1250	250	2	300	12	2.5	6.25
250	1250	250	2	300	12	6.0	2.60
250	1250	250	2	300	12	26.5	0.57
300	2000	250	2	400	12	6.0	2.55
60	20,000	†	†	1500	8	26.0	2.20
300	2000	200	2	300	12	6.0	2.10
20,000	8000	15,000	60	1500	200	10.0	30.00
150	1250	250	2	300	12	6.0	2.60
150	1250	250	2	300	12	26.5	0.57
150	1250	250	2	300	15	2.5	6.25
250	2000	250	2	300	12	6.0	2.10
250	2000	250	2	300	12	26.5	0.50
500	4000	350	10	500	30	5.0	13.50
500	4000	350	10	500	30	5.0	13.50
5000	7500	3000	75	1500	250	7.5	75.00

TRIODES

2C39A	75TL
2C39B	100TH
3C24	100TL
3CX100A5	152TH
3W5000A3	152TL
3W5000F3	250TH
3X100A5	250TL
3X2500A3	304TH
3X2500F3	304TL
3X3000A1	450TH
3X3000F1	450TL
6C21	592/3-200A3
25T	750TL
35T	1000T
35TG	1500T
75TH	2000T

TRIODES

2C39A*
2C39B*
3C24
3CX100A5
3W5000A3**
3W5000F3**
3X100A5
3X2500A3*
3X2500F3*

3X3000A1*
3X3000F1*
6C21
25T
35T
35TG

75TH
75TL
100TH
100TL
152TH

152TL
250TH
250TL
304TH
304TL

450TH
450TL
592/3-200A3
750TL
1000T

1500T
2000T

4E27A/5-125B

100	1000	125†	2	...	...	6.3	1.00	100
100	1000	125†	2	...	...	6.3	1.00	100
25	2000	75	7	...	...	6.3	3.00	24
100	1000	125†	2	...	...	6.3	1.00	100
5000	6000	2500	150	...	...	7.5	51.00	20
5000	6000	2500	150	...	...	7.5	51.00	20
100	1000	125†	2	...	...	6.3	1.00	100
2500	6000	2500	150	...	...	7.5	51.00	20
2500	6000	2500	150	...	...	7.5	51.00	20
3000	6000	2500	50	...	...	7.5	51.00	5
3000	6000	2500	50	...	...	7.5	51.00	5
300	30,000	†	†	...	...	8.2	17.00	30
25	2000	75	7	...	...	6.3	3.00	24
50	2000	150	15	...	...	5.0	4.00	39
50	2000	150	15	...	...	5.0	4.00	39
75	3000	225	16	...	...	5.0	6.25	20
75	3000	225	13	...	...	5.0	6.25	12
100	3000	225	20	...	...	5.0	6.30	38
100	3000	225	15	...	...	5.0	6.30	14
150	3000	450	30	...	...	5 or 10	12.50 or 6.25	20
150	3000	450	25	...	...	5 or 10	12.50 or 6.25	12
250	4000	350	40	...	...	5.0	10.50	37
250	4000	350	35	...	...	5.0	10.50	14
300	3000	900	60	...	...	5 or 10	25 or 12.50	20
300	3000	900	50	...	...	5 or 10	25 or 12.50	12
450	6000	600	80	...	...	7.5	12.00	38
450	6000	600	65	...	...	7.5	12.00	18
200	3500	250	25	...	...	10.0	5.00	25
750	10,000	1000	100	...	...	7.5	21.00	15
1000	7500	750	80	...	...	7.5	15.50	35
1500	8000	1250	125	...	...	7.5	24.00	24
2000	8000	1750	150	...	...	10.0	23.50	23

PENTODE

4E27A/5-125B

RECTIFIERS

2-01C	253
2-25A	8020(100R)
2-50A	2CL40A
2-150D	2X1000A
2-240A	2X3000F
2-450A	KY21A
2-2000A	RX21A
250R	

PENTODE

KLYSTRONS

3K2500SG	3K50,000LK
3K3000LQ	3K50,000LQ
3KM3000LA	3KM50,000PA
3K20,000LA	4K50,000LQ
3K20,000LF	1K015CA
3K20,000LK	1K015CG
3K50,000LA	1K015XA
3K50,000LF	1K015XG

KLYSTRONS

3K2500SG*
3K3000LQ*
3KM3000LA*
3K20,000LA**
3K20,000LF**
3K20,000LK**
3K50,000LA**
3K50,000LF**
3K50,000LK**
3K50,000LQ**
3KM50,000PA**
4K50,000LQ**

1K015CA
1K015CG**
1K015XA
1K015XG**

Frequency Range Mc.	Collector Dissipation Watts	Beam Voltage	Beam Current Amperes	TV Peak Synchronizing Level	CW Peak Amplification
1700-2400	3000	7000	0.575	1500	1250
700-1000	3000	9000	0.750	2700	2000
375-540	3000	9000	0.750	2700	2000
470-580	20,000	13,000	1.700	5500	3000
580-720	20,000	13,000	1.700	5500	3000
720-890	20,000	13,000	1.700	5500	3000
470-580	50,000	19,500	2.560	12,000	6000
580-720	50,000	19,500	2.560	12,000	6000
720-890	50,000	19,500	2.560	12,000	6000
750-1000	50,000	20,000	2.500	12,000	6000
225-400	50,000	20,000	2.500	31,500	20,000
700-1000	50,000	20,000	2.500	12,000	6000

D-C Resonator Voltage	D-C Resonator Dissipation	D-C Cathode Current	D-C Repeller Voltage	Heater Voltage	Heater Current	Frequency Range
350	15	..	.....	6.3	0.80	5400-6000
350	15	..	.....	6.3	0.80	5400-6000
350	15	45	0 to -500	6.3	0.80	8700-9600
350	15	45	0 to -500	6.3	0.80	8700-9600

*Requires forced air cooling

**Water cooled

***Waveguide output connections

****Grid controlled

†Pulse modulator

‡Liquid cooled

‡Cathode Current

1 Pulse clipper service

2 Grid-to-screen amplification

Reliability in power electron tubes

Continuing research and development adds constantly to the Eimac products list.
For latest information, contact our Technical Services Department.

TYPE	HIGH VACUUM TYPES				
	FILAMENT VOLTAGE	FILAMENT CURRENT AMPS.	PEAK INVERSE VOLTAGE	PEAK PLATE CURRENT AMPS.	AVERAGE PLATE CURRENT MA
1C	5.3	0.4	1,000	0.010	1
5A	6.3	3.0	25,000	1.0	50
0A	5.0	4.0	30,000	1.0	75
50D	5.0	13.0	30,000	3.0	250
40A	7.5	12.0	40,000	4.0	500
50A	7.5	26.5	25,000	8.0	1000
000A	10.0	25.0	75,000	12.0	750
0R	5.0	10.5	60,000	2.5	250
	5.0	10.0	15,000	2.5	350
0(100R)	5.0	6.5	40,000	1.5	100
40A	6.0	2.1	8,000 or 16,000+	10.0	120+
1000A*	26.5	2.25	25,000	25.0 ¹	1250
3000F	7.5	51.0	25,000	12.0	3000
MERCURY VAPOR TYPES					
21A****	2.5	10.0	11,000	3.0	750
21A	2.5	10.0	11,000	3.0	750

HEATER SOCKETS & CHIMNEYS

HEATER SOCKETS (WITHOUT CHIMNEY)

- SK-100** For Klystrons with oxide coated cathodes such as the 3K3000LQ.
- SK-110** For Klystrons with bombardment heated cathodes such as the 3K5000LQ and 4K5000LQ....
- SK-200** Cathode end socket for klystrons such as the 3K2500SG.....
- SK-300** 4CX5000A (No Screen By-pass Capacitor).....
- SK-400** 4-400A, 4-250A, 4-125A.....
- SK-500** 4-1000A.....
- SK-600** 4X150A, 4X150D, 4X250B, 4X250F, 4W300B (Cathode Terminals Not Grounded).....
- SK-602** 4X150A, 4X150D, 4X250B, 4X250F, 4W300B (Modification of SK-600—Shield slotted between pins 1 & 2).....
- SK-610** 4X150A, 4X150D, 4X250B, 4X250F, 4W300B (Cathode Terminals Grounded).....

SK-620 4X150A, 4X150D, 4X250B, 4X250F, 4W300B (Cathode Terminals Not Grounded—Screen By-pass Capacitor Plastic Sealed)

SK-630 4X150A, 4X150D, 4X250B, 4X250F, 4W300B (Cathode Terminals Grounded—Screen By-pass Capacitor Plastic Sealed)..

SK-640 4X150A, 4X150D, 4X250B, 4X250F, 4W300B (Cathode Terminals Not Grounded—No Screen By-pass Capacitor).....

SK-700 4CX300A (Cathode Terminal Not Grounded).....

SK-710 4CX300A (Cathode & One Heater Terminal Grounded).....

CHIMNEYS

SK-406 (For use with SK400 Air System Socket).....

SK-506 (For use with SK-500 Air System Socket).....

SK-606 (For use with SK-600 series and SK-700 series Air System Sockets).....

HEAT DISSIPATING CONNECTORS

TYPE	HOLE DIA.
------	-----------

HR-1	.052
HR-2	.062
HR-3	.070
HR-4	.102
HR-5	.125
HR-6	.359
HR-7	.125
HR-8	.570
HR-9	.570
HR-10	.510

VACUUM SWITCH

Single pole double throw switch within a high vacuum adaptable for high voltage switching. Contact spacing .015". Switch will handle R-F potentials as high as 20 Kv. In DC switching will handle approximately 1.5 Amps. at 5 Kv.

Type

VS-2
VS-5
VS-6

Coils

12V
24V

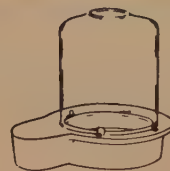
PREFORMED CONTACT FINGER STOCK

A prepared strip of spring material slotted and formed into a series of fingers designed to make sliding contact.

Single Edge	Width	Double Edge	Width
CF-100	17/32	CF-200	13/16
CF-300	31/32	CF-400	1-17/32
CF-500	1-3/8	CF-600	2-1/4

Klystron Types	Width
CF-700	17/32
CF-800	13/32 x 5/16

Used as contact between klystrons and klystron amplifier circuit assemblies.

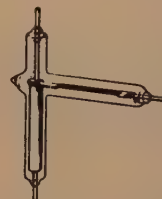


AIR SYSTEM SOCKETS

SK-100	SK-600	SK-700
SK-110	SK-602	SK-710
SK-200	SK-610	SK-406
SK-300	SK-620	SK-506
SK-400	SK-630	SK-606
SK-500	SK-640	

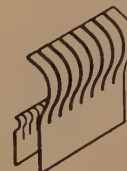


HR HEAT DISSIPATING CONNECTORS



VACUUM SWITCH

VS-2, 5, 6

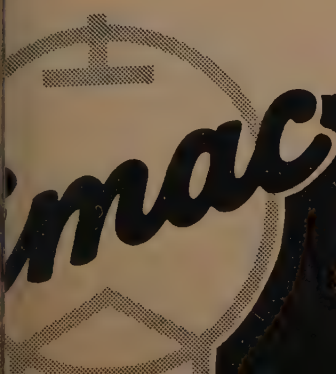


17/32	13/16
31/32	1-17/32
1-3/8	2-1/4

TUBE EXTRACTOR

SK-601

*Grid Controlled



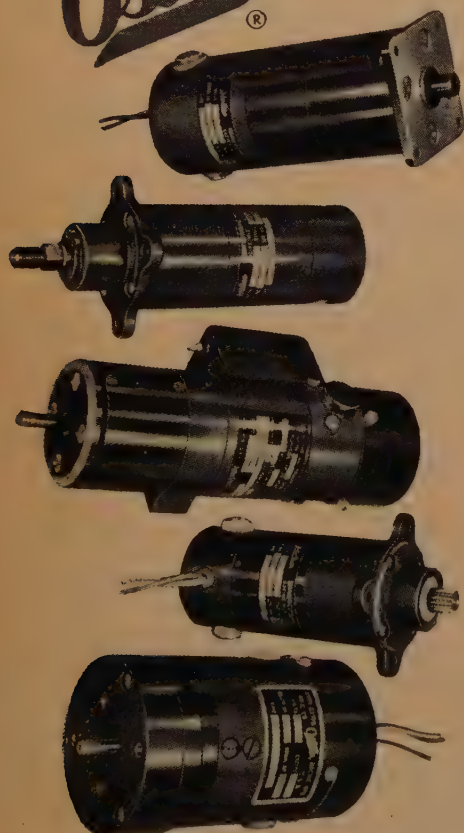
EITEL-McCULLOUGH, INC.
SAN BRUNO, CALIFORNIA

Motor - Gear - Trains

3:1 to 150,000:1 Ratio Range • Up to 18 Foot Pounds Torque

- Motors available: DC, 60 or 400 cycle, PM, split series, series, shunt, single phase and 2-phase. All are reversible.
- Available with either governor or brake.
- 1000 hour life minimum.
- Designed to meet MIL-E-5272A.
- Precision gearing throughout.
- Can be furnished up to 125°C.
- Designed for continuous duty or intermittent duty applications.

Oster®



Other products include servos, synchros, AC drive motors, DC motors, servo mechanism assemblies, synchro indicators, servo torque units, reference and tachometer generators, actuators, motor driven blower and fan assemblies and fast response resolvers.

BURTON BROWNE ADVERTISING

MOTOR GEAR TRAIN									Size	Overall Length Inches-Max.	Motor Type	Mounting	Oster Type
Gear Ratio	No-Load Speed	Nominal Voltage D.C.	Voltage Range D.C.	No-Load Current	Normal Speed	Normal Load OZ.IN.	Normal Current	Operating Temp. Range					
5.68:1	1800	28	24-32	0.4	1800	5.0	1.0	-55° To +85°C	13	3.777	P.M. GOVERNOR	FACE	13R-9102-00
17.9:1	600	28	24-32	0.4	600	12.0	1.0	-55° To +85°C	13	3.930	P.M. GOVERNOR	FACE	13R-9102-06
32.3:1	300	28	24-32	0.4	300	12.0	1.0	-55° To +85°C	13	3.935	P.M. GOVERNOR	FACE	13R-9102-02
67:1	150	28	24-32	0.4	150	12.0	0.6	-55° To +85°C	13	4.092	P.M. GOVERNOR	FACE	13R-9102-05
85:1	150	27.5	—	.25	130	50.0	0.7	-55° To +85°C	13	4.095	P.M.	FACE	13R-9101-11
109:1	100	28	24-32	0.4	100	32	0.6	-55° To +85°C	13	4.094	P.M. GOVERNOR	SYNCHRO	13R-9102-12
109:1	180	27.5	—	0.4	175	30	0.5	-55° To +100°C	13	2.843	P.M.	FLANGE	13R-9104-01
125:1	75-90	28	—	.25	70-85	20	0.3	-55° To +71°C	13	3.920	P.M.	FACE	13R-9101-13
157:1	60	28	24-32	0.4	60	12.0	0.6	-55° To +85°C	13	4.095	P.M. GOVERNOR	FACE	13R-9102-03
285:1	48	35	—	.25	40	160	0.6	-55° To +71°C	13	4.038	P.M.	FACE	13R-9103-01
333:1	30	28	24-32	0.4	30	12.0	0.6	-55° To +85°C	13	4.317	P.M. GOVERNOR	FACE	13R-9102-04
410:1	15	27	25-29	0.3	15	8.0	0.3	-55° To +85°C	13	4.400	P.M. GOVERNOR	FACE	13R-9102-11
1043.8:1	5-10	27	24-30	0.15	7	30	0.2	-55° To +71°C	13	4.450	P.M. BRAKE	FACE	13R-9105-01
1044:1	5-10	27	24-30	0.15	7	30	0.2	-55° To +71°C	13	3.910	P.M.	FACE	13R-9101-12
2214:1	3-4	6	—	1.2	3.4	30	1.2	-55° To +71°C	13	4.454	P.M.	FACE	13R-9101-04
3241:1	5.5	35	—	.35	5.5	18	0.4	-55° To +71°C	13	4.454	P.M.	FACE	13R-9101-03
5933:1	1.3	30	—	.13	1.3	30	0.15	-55° To +71°C	13	4.816	P.M.	FACE	13R-9101-10
21,707:1	2-3	120	—	.25	2-3	12	0.25	-55° To +71°C	13	3.475	P.M.	FLANGE	13R-9101-16
322:1	80	110	—	0.2	30	240	0.3	-55° To +71°C	15	3.815	SPLIT SERIES	FLANGE	15R-9201-01
407:1	22	27	—	0.2	20	8	0.2	-20° To +50°C	15	3.989	SPLIT SERIES	SYNCHRO	15R-9201-03
433:1	30	26	—	0.6	25	260	1.2	-50° To +80°C	15	3.110	SHUNT	FACE	15R-9201-02
955:1	33	27	—	0.6	12-18	420	1.0	-55° To +50°C	15	4.419	SPLIT SERIES	FLANGE	15R-9201-08
26:1	240	27.5	24-29	0.65	240	40	1.3	-18° To +71°C	17	5.315	SHUNT GOVERNOR	SYNCHRO	17R-9251-01
4.26:1	1800	28	—	0.6	1800	12	1.85	-30° To +55°C	24	4.640	SHUNT GOVERNOR	FACE	24R-9451-01

Speed tolerance on governed motors is $\pm 2\%$ over voltage and an ambient temperature range. Closer speed tolerance units can be designed to fit the particular application.

Many other variations available. There is an Oster motor-gear-train to fit your exact specification. Consult Oster specialists today, sending your detailed requirements.

John Oster

MANUFACTURING COMPANY

Your Rotating Equipment Specialist
AVIONIC DIVISION
Racine, Wisconsin

Engineers For Advanced Projects:

Interesting, varied work on designing transistor circuits and servo mechanisms. Contact Mr. Zelazo, Director of Research, in confidence.

When ordering or seeking information please mention Electronics Buyers' Guide.

June, 1957 — MID-MONTH — ELECTRONICS BUYERS' GUIDE

CINCH

NEW DEVELOPMENTS IN PRINTED CIRCUIT SOCKETS:

sockets for the three types of receiving tubes, Pin, Flat Press and Button.

contacts are so spaced that they can be mounted in incremental drill pattern. This fact together with the precision and uniformity of Cinch sockets make them ideal for automatic assembly.

920-7 contact miniature molded vertically mounted with JAN type shield base. Mica insulation. Silver phosphor bronze contacts drop through .062" dia. clearance holes arranged on a .1" X and Y axis.

53 - 8 contact button base subminiature molded, vertically mounted socket. Mica insulation. Silver plated rim copper contacts drop through .070" dia. clearance holes arranged on a .1" X and Y axis.

53A-Same as above except insulation to withstand temperatures above 200° Centigrade.

2024-7 contact flat press subminiature molded, vertically mounted socket for conventional wiring. Assembled with special shield base to accept a subminiature shield e "J" lock. Flat sided retaining nuts and screws are used for mounting. Mica insulation. Silver plated beryllium copper contacts.

2023-Same as above except insulation to withstand temperatures above 200° Centigrade.

2022 - 8 contact button base subminiature molded vertically mounted socket for conventional wiring. Assembled with special shield base to accept a subminiature shield e "J" lock. Mica insulation. Silver plated beryllium contacts.

2021-Same as above except insulation to withstand temperatures above 200° Centigrade.

202-7 contact miniature molded right angle mounted with JAN shield base. Mica insulation. Silver plated rim copper contacts drop through .062" dia. clearance holes arranged on a .1" X and Y axis.



24263 9 Pin telescopic shield

EXP-9561 - 7 contact flat press subminiature molded right angle socket. Mica insulation. Silver plated beryllium copper contacts drop through .046" dia. clearance holes arranged on a .1" X and Y axis.

EXP-9561A-Same as above except insulation to withstand temperatures above 200° Centigrade.

EXP-9562-8 contact button base subminiature molded, right angle mounted socket. Mica insulation. Silver plated beryllium copper contacts drop through .046" dia. clearance holes arranged on .1" X and Y axis.

EXP-9562A - Same as above except insulation to withstand temperatures above 200° Centigrade.



24260 7 Pin with telescopic shield

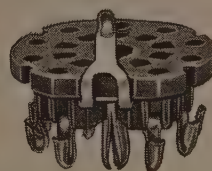
NEW MOLDED RIGID TAIL PRINTED CIRCUIT SOCKETS: Snap in type contact. Can be stacked for automatic assembly. Can be furnished with integral twist lock telescopic shield. General purpose Mica or Alkyd insulation.



24264 9 Pin with center post Mica



24261 7 Pin with center post Mica



24265 9 Pin with ground strap and center post Alkyd



24262 7 Pin with ground strap and center post Alkyd



No. 22920



EXP-9553



No. 22024



No. 22022



22468



20928



20248



22485



22455



22452



16995



14273



17431



14148



22317



22674



20782



22555

SOCKETS

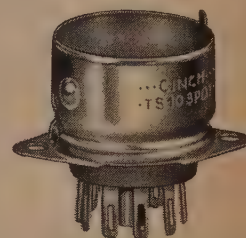
MINIATURE SOCKETS

Saddles and shield bases of these Cinch miniature sockets are brass, nickel plated. All contacts are silver plated; tails are hot tin dipped. Molded castings are type MFE material; ceramic castings are grade L4B material or better.

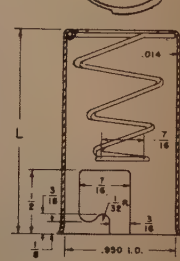
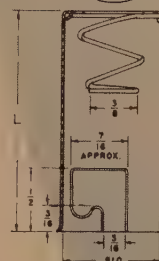
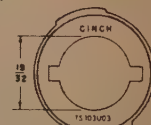


NOVAL SOCKETS

The saddles and shield bases of Cinch noval sockets are brass, nickel plated. Contacts are silver plated; tails are hot tin dipped. Molded castings are type MFE material; ceramic castings are grade L4B or better.



CINCH MIL SOCKETS MEET AND SURPASS RIGID MILITARY REQUIREMENTS. MIL SHIELDS:



MINIATURE

NOVAL

Part No.	Type Designation	L
For Miniature Sockets		
13A22388	TS102U01	1 3/4
13A22389	TS102U02	1 3/4
13A22390	TS102U03	2 1/4
For Noval Sockets		
13B22385	TS103U01	1 1/2
13B22386	TS103U02	1 1/4
13B22387	TS103U03	2 3/4

Descriptive circular with complete information on CINCH MIL sockets, shields and shield inserts available on request.



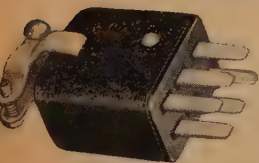
CINCH MANUFACTURING CORPORATION

1026 South Homan Ave., Chicago 24, Illinois

Subsidiary of United-Carr Fastener Corporation, Cambridge, Mass.

JONES

JONES PLUGS AND SOCKETS



Jones 300 Series are small in size with good separation between contacts. Made in two to thirty three contacts. Plugs and sockets are polarized. A popular, inexpensive connector adaptable to a thousand uses. Phosphor bronze "knife switch" socket contacts engage both sides of heavy brass plug contacts for positive connections. Molded Bakelite insulation. Can also be supplied with contacts that will take the Faston or Quick Connect solderless terminals.



Jones 2400 Series are designed for highest electrical and mechanical efficiency. Ideal for Public Address, Radio, Electronic Controls, Vending Machines, or wherever a quality connector is required. Maximum creepage distances between contacts and contact to ground makes this series a must when Underwriter label is required. Made in 2, 4, 6, 8, 10 and 12 contact. Molded Bakelite insulation. Caps are of steel with black wrinkle finish.



Jones 202 Series: Shielded type low loss plugs and sockets for high frequency connections. Ideal for antenna connections, photo-cell work, microphone connections. Phosphor bronze knife-switch type socket contacts engage both sides of flat plug contact—double contact area. Plugs and sockets have molded Bakelite insulation.



JONES FANNING STRIPS



Jones fanning strips simplify connections to the barrier strips. Makes the replacement of units an easy matter and assures correct connections after servicing. Supplied with straight or right angle terminals.

The steadily expanding variety of plugs and sockets produced at the JONES Division has a wide range of the highest quality electrical and mechanical parts to efficiently fill every need.

JONES MEANS PROVEN QUALITY!

Hundreds of standard JONES terminal panels available; complete latest equipment for specials, send your specifications for prompt quotation.



No. 6-172

Jones 172 Series—A miniature barrier strip $\frac{5}{8}$ " wide with terminals mounted on $\frac{1}{4}$ " centers. Screw size: $2-56 \times \frac{1}{4}$ ". Molded Bakelite insulation. Made in one to fourteen contacts. Also supplied in the $\frac{3}{4}$ W and W types.



No. 6-173

Jones 173 Series—A small single contact barrier strip with terminals mounted on $\frac{3}{8}$ " centers. Made in one to eight contacts. Screw size: $4-40 \times \frac{5}{16}$ ". Molded Bakelite insulation.

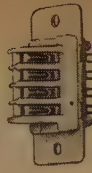
The components are shown here for variety, types and uses, and are not necessarily in comparative size.

HOWARD B. JONES DIVISION
CINCH MANUFACTURING CORPORATION

36-4200-8S



36-4100-8P



36-4200-24S



36-4100-24P



36-4100-24S

The ribbon contact principle, with dielectric guide and support eliminates the possibilities of damaged or bent contacts and prevents difficulties of plug-in. No dependence on contact arrangement or visual alignment is necessary.

BLUE RIBBON CONNECTORS

Barrier Polarization Type Insure Quick Positive Contact With Ease

The Wedge principle with the strong spring action of the contacts holds the connector in positive contact, and provides ease of insertion and withdrawal. The protective barriers between ribbon contacts insure the spacing.



40 contact connector "A" style for applications where plug is "live voltage" side.

CINCH

COMPRESSION TYPE MICRO CONNECTORS

28, 32, 40, 48 and 52 contacts. Centing screw with wing nut or screw slot and spring action contacts — easy, quick and reliable engagement and disengagement. Receptacle side available for pressurized applications.



52 contact connector "B" style for applications where receptacle is "live voltage" side.



Cinch
ELECTRONIC
COMPONENTS

BARRIER TYPE TERMINAL STRIP PLUGS, SOCKETS, FANNING STRIPS



No. 2-141



No. 2-141-Y



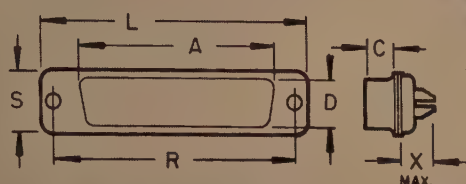
JONES Barrier Terminal Strips: increased insulation, better connections. Leakage path is increased direct shorts from frayed terminals prevented by Bakelite barriers placed between terminals. Binder screws and terminals are nickel plated. Insulation, molded Bakelite. Finest construction. Add much to equipment's efficiency.



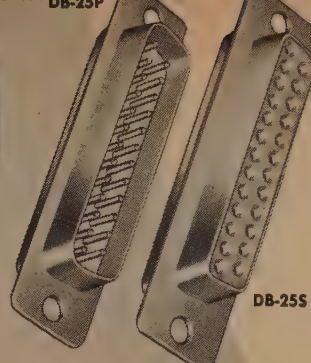
DPA CONNECTORS

★ **CANNON D SUB-MINIATURE, DPA and DPX SERIES CONNECTORS** (Right) D Sub-Miniatures; Standard Pin and Socket Inserts:

Arrangements
coaxials in
5, 37 and
61. Insula-
rial—Zytel
DIAL. Po-
n — Key-
nered shell.
ng tem-
—67° to



★ Manufactured by agreement with Cannon Electric Company
Send for illustrated Catalog No. 157 with details of "D" Sub-Miniature, "DPA" and "DPX" Series.



DB-25P

GRAPHIK CIRCUITS

Graphik Circuits Reduce Wiring Costs • Cut Down Assembly Time • Eliminate Errors • Miniaturize • Guarantee Uniformity

Solderless wrapped connections. CINCH Graphik Circuits is tooled to provide wire wrap termination on etched circuit boards. Reduction in cost of component assembly is accomplished by speeding production and the elimination of soldering. Complete facilities for engineering production design, drafting, artwork, development, prototyping and manufacturing photo-printing, silk screen etching, machining and punching, fabrication, mechanical assembly, electrical assembly, encapsulating, quality control, and fluoroscopic inspection.

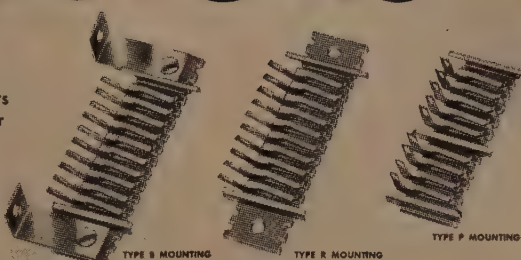
Developed and produced for right angle application. The right angle board accommodates all the CINCH socket sizes, and can be bonded with epoxy resin or snapped in and retained. Newly developed CINCH hardware. All units meet or exceed Military Specifications. Sockets, terminals and other hardware installed to customer specifications using latest equipment in automatic assembly.

GRAPHIK CIRCUITS
Division of Cinch Manufacturing Corporation
221 So. Arroyo Parkway
Pasadena 1, Calif.

CONNECTORS

"50" EDGE CONNECTORS

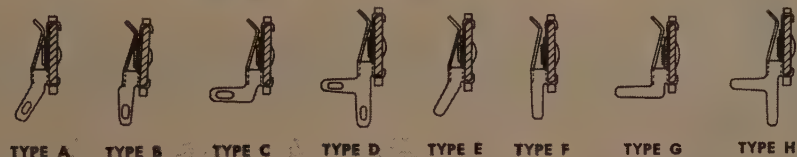
Cinch 50M Edge Connectors are available in any number of contacts from one to 56. The contacts are on standard 5/32" centers. A polarizing guide may be assembled at any contact position.



TYPE B MOUNTING

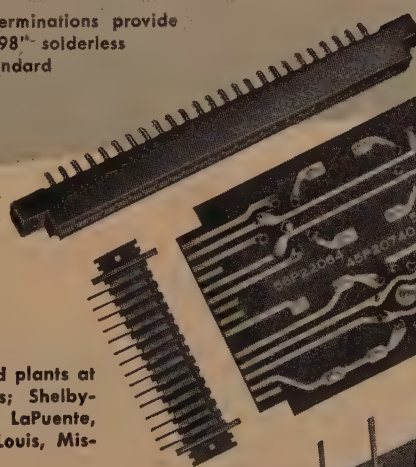
TYPE R MOUNTING

TYPE P MOUNTING



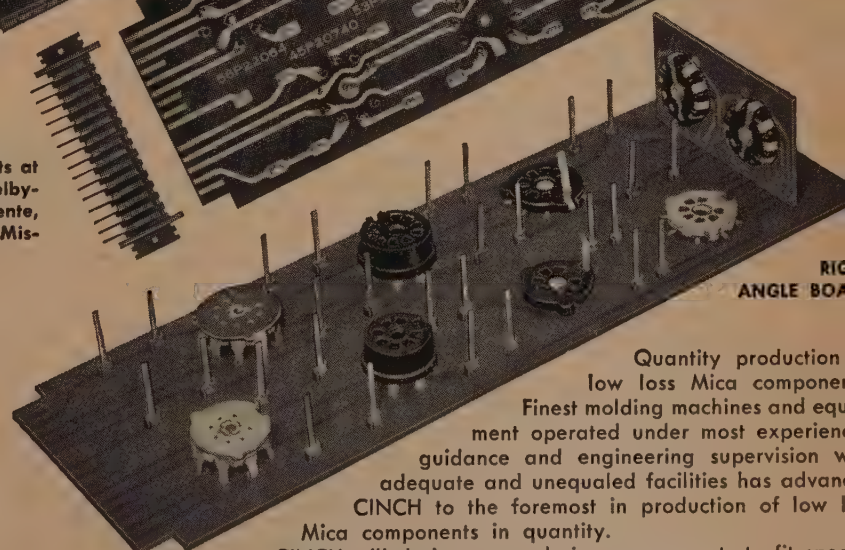
Eight different contact tail terminations provide for use of A.M.P. "78" or "98" solderless taper tab connections. A standard solder slot is also provided.

The 25 contact printed wiring edge connector.



Centrally located plants at Chicago, Illinois; Shelbyville, Indiana; LaPuente, California; St. Louis, Missouri.

STRIPS FOR SOLDERLESS TERMINALS.
141 and 142 series are now available for solderless "Faston" or "Quick Connect" terminals. Illustration shows various angles that terminals can be supplied. The terminal is extruded type so that it can be tapped for the addition of screw terminals. A most complete line of barrier strips for every require-



RIGHT ANGLE BOARD

Quantity production of low loss Mica components. Finest molding machines and equipment operated under most experienced guidance and engineering supervision. Adequate and unequalled facilities has advanced CINCH to the foremost in production of low loss Mica components in quantity. CINCH will design, or re-design, components to fit special needs, and will assist in the assembly of components through proven automation technique.



Cinch
ELECTRONIC COMPONENTS

CINCH MANUFACTURING CORPORATION

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Subsidiary of United-Carr Fastener Corporation, Cambridge, Mass.

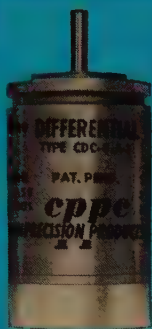
cppe

for ALL Types

SIZE 8

Weight 32 gms.
Dia. .750 in.

Actual Size



SIZE 10

Weight 50 gms.
Dia. .937 in.

Actual Size



SIZE 11

Weight 82 gms.
Dia. 1.062 in.

Actual Size



SIZE 15

Weight 126 gms.
Dia. 1.437 in.

Actual Size



STANDARD UNITS

ROTOR AS PRIMARY

STATOR AS PRIMARY

SYNCHRO FUNCTION	CPPE TYPE	Input Voltage (400 ~)	Input Current (Amps.)	Input Power (Watts)	Output Voltage (Volts)	Sensitivity (MV/deg.)	Phase Shift (deg. lead)	Input Voltage (400 ~)	Input Current (Amps.)	Input Power (Watts)	Output Voltage (Volts)	Sensitivity (MV/deg.)
Torque Transmitter	CGC-8-A-7	26	.100	.5	11.8	206	8°	—	—	—	—	—
Control Transformer	CTC-8-A-1	—	—	—	—	—	—	11.8	.090	.23	23.5	410
Control Transformer	CTC-8-A-4	—	—	—	—	—	—	11.8	.029	.08	22.5	390
Torque Receiver	CRC-8-A-1	26	.100	.5	11.8	206	8°	—	—	—	—	—
Electrical Resolver	CSC-8-A-1	26	.039	.43	10.6	185	20°	11.8	.084	.27	23.2	400
Control Differential	CDC-8-A-1	—	—	—	—	—	—	11.8	.085	.21	11.8	206
Vector Resolver	CVC-8-A-1	26	.057	.34	11.8	206	10.2°	—	—	—	—	—

STANDARD UNITS

ROTOR AS PRIMARY

STATOR AS PRIMARY

SYNCHRO FUNCTION	CPPE TYPE	Input Voltage (400 ~)	Input Current (Amps.)	Input Power (Watts)	Output Voltage (Volts)	Sensitivity (MV/deg.)	Phase Shift (deg. lead)	Input Voltage (400 ~)	Input Current (Amps.)	Input Power (Watts)	Output Voltage (Volts)	Sensitivity (MV/deg.)
Torque Transmitter	CGC-10-AS-4	26	.142	.61	11.8	206	5	—	—	—	—	—
Control Transformer	CTC-10-AS-1	26	.033	.23	11.2	200	10	11.8	.081	.19	23.5	410
Control Transformer	CTC-10-AS-4	26	.009	.06	11.2	200	10	11.8	.021	.05	23.5	410
Control Differential	CDC-10-AS-1	11.8	.082	.23	11.2	200	11	11.8	.080	.19	10.8	195
Torque Receiver	CRC-10-AS-1	26	.086	.42	11.8	206	6.5	—	—	—	—	—
Electrical Resolver	CSC-10-AS-1	26	.036	.35	11.8	206	18	11.8	.072	.21	24	410
Vector Resolver	CVC-10-AS-1	26	.049	.25	11.8	206	7	11.8	.092	.33	22.8	390
Vector Resolver	CWC-10-AS-1	26	.040	.28	11.8	206	10	11.8	.080	.26	21.0	365

STANDARD UNITS

ROTOR AS PRIMARY

STATOR AS PRIMARY

SYNCHRO FUNCTION	CPPE TYPE	Input Voltage (400 ~)	Input Current (Amps.)	Input Power (Watts)	Output Voltage (Volts)	Sensitivity (MV/deg.)	Phase Shift (deg. lead)	Input Voltage (400 ~)	Input Current (Amps.)	Input Power (Watts)	Output Voltage (Volts)	Sensitivity (MV/deg.)
Torque Transmitter	CG-11-B-2	26	.168	.69	11.8	206	4	—	—	—	—	—
Control Transmitter	CG-11-B-7	26	.089	.36	11.8	206	3.5	—	—	—	—	—
Torque Transmitter	CG-11-B-6	115	.042	.71	11.8	206	3.4	—	—	—	—	—
Control Transformer	CT-11-B-2	26	.058	.32	11.8	206	6	11.8	.138	.29	23.5	410
Control Transformer	CT-11-B-8	—	—	—	—	—	—	11.8	.098	.18	23.5	410
Control Transformer	CT-11-E-7	26	.015	.102	11.8	206	6	11.8	.035	.09	22.7	400
Control Differential	CD-11-B-2	—	—	—	—	—	—	11.8	.150	.38	11.8	206
Torque Receiver	CR-11-B-2	26	.095	.41	11.8	206	4	—	—	—	—	—
Electrical Resolver	CS-11-B-2	26	.050	.32	12.4	220	8.5	12.6	.092	.23	23.5	410
Vector Resolver	CV-11-B-2	3	.108	.36	3.1	54	3.5	3.2	.072	.05	24.5	410

STANDARD UNITS

ROTOR AS PRIMARY

STATOR AS PRIMARY

SYNCHRO FUNCTION	CPPE TYPE	Input Voltage (400 ~)	Input Current (Amps.)	Input Power (Watts)	Output Voltage (Volts)	Sensitivity (MV/deg.)	Phase Shift (deg. lead)	Input Voltage (400 ~)	Input Current (Amps.)	Input Power (Watts)	Output Voltage (Volts)	Sensitivity (MV/deg.)
Torque Transmitter	CG-15-D-1	26	.221	.75	11.8	206	3.0	—	—	—	—	—
Torque Transmitter	CG-15-D-4	26	.100	.35	11.8	206	3.5	—	—	—	—	—
Torque Transmitter	15CX4a	115	.067	.70	90	1560	2.5°	—	—	—	—	—
Torque Transmitter	CG-15-MS-1	115	.067	.70	90	1560	2.5°	—	—	—	—	—
Control Transformer	CT-15-D-1	—	—	—	—	—	—	11.8	.125	.24	23.4	410
Control Transformer	CT-15-D-4	—	—	—	—	—	—	11.8	.032	.06	23.4	410
Torque Receiver	CR-15-D-1	26	.100	.35	11.8	206	3.5°	—	—	—	—	—
Electrical Resolver	CS-15-D-1	26	.055	.31	11.8	206	7.5°	11.8	.110	.25	23	410
Vector Resolver	CW-15-D-1	32	.005	.03	15	260	5.0°	15	.010	.03	28.5	410
Control Differential	CD-15-D-1	11.8	.122	.33	10.8	188	9°	11.8	.120	.24	11.0	410

CLIFTON PRECISION PRODUCTS

CLIFTON HEIGHTS

of SYNCHROS

DISTANCE		IMPEDANCE			ACCURACY			
Rotor (Ohms)	Stator (Ohms)	Z _{rs} (Ohms)	Z _{ss} (Ohms)	Z _{ss} (Ohms)	Max. Null Voltage (mV)	Max. Error (Min.)	Max. Error Spread (Min.)	Length in Inches
37	12	54 + j260	12 + j45	80 + j20	30	7	14	1.240
143	25	220 + j740	28 + j110	246 + j60	30	7	14	1.240
389	64	560 + j1860	90 + j340	640 + j190	30	7	14	1.240
37	12	54 + j260	12 + j45	80 + j20	30	—	30	1.240
230	27	280 + j600	38 + j136	70 + j136	30	7	14	1.240
36	25	38 + j122	27 + j120	48 + j14	30	7	14	1.240
78	27	103 + j440	8 + j30		30	7	14	1.240

DISTANCE		IMPEDANCE			ACCURACY			
Rotor (Ohms)	Stator (Ohms)	Z _{rs} (Ohms)	Z _{ss} (Ohms)	Z _{ss} (Ohms)	Max. Null Voltage (mV)	Max. Error (Min.)	Max. Error Spread (Min.)	Length in Inches
16	7.2	35 + j180	8 + j31	47 + j16	30	—	12	1.241
140	24	205 + j752	32 + j128	234 + j81	30	—	15	1.241
566	100	807 + j2950	115 + j481	945 + j325	30	—	15	1.241
32	25	34 + j119	31 + j123	57 + j17	30	—	15	1.281
34	12	58 + j300	13 + j51	80 + j27	30	—	30	1.241
215	28	273 + j668	41 + j159	308 + j71	1 mv/v	—	15	1.281
68	28	107 + j527	40 + j123	170 + j59	1 mv/v	—	15	1.241
111	28	177 + j625	91 + j143	215 + j70	1 mv/v	—	15	1.241

DISTANCE		IMPEDANCE			ACCURACY			
Rotor (Ohms)	Stator (Ohms)	Z _{rs} (Ohms)	Z _{ss} (Ohms)	Z _{ss} (Ohms)	Max. Null Voltage (mV)	Max. Error (Min.)	Max. Error Spread (Min.)	Length in Inches
10.4	3.6	24 + j153	5 + j24	28 + j14	30	—	12	1.600
18	7.7	45 + j288	9 + j48	48 + j22	30	—	12	1.600
180	3.8	410 + j2700	5 + j24	50 + j21	100	—	12	1.600
45	8.5	94 + j436	15 + j72	81 + j40	30	—	12	1.600
47	13	100 + j620	19 + j100	—	30	—	12	1.600
196	35	454 + j1670	74 + j283	320 + j163	30	—	12	1.600
12	8.5	14 + j67	17 + j66	62 + j28	30	—	12	1.640
20	8.5	40 + j260	10 + j40	50 + j21	30	—	30	1.600
80	13.6	128 + j503	27 + j136	126 + j43	1 mv/v	—	12	1.640
18	64	39 + j293	10 + j41	—	1 mv/v	—	12	1.600

DISTANCE		IMPEDANCE			ACCURACY			
Rotor (Ohms)	Stator (Ohms)	Z _{rs} (Ohms)	Z _{ss} (Ohms)	Z _{ss} (Ohms)	Max. Null Voltage (mV)	Max. Error (Min.)	Max. Error Spread (Min.)	Length in Inches
5	3	12 + j115	3.9 + j19	28 + j11	30	—	10	1.600
5	5.7	35 + j260	7.1 + j40	40 + j23	30	—	10	1.600
161		163 + j1690	175 + j894		125	12	24	2.000
161		163 + j1690	175 + j894		75	—	10	2.000
10		80 + j490	15 + j80	74 + j50	30	—	10	1.600
37		360 + j1870	63 + j320	338 + j203	30	—	10	1.600
5.7		35 + j260	7.1 + j40	40 + j23	30	—	30	1.600
13		110 + j520	23 + j120		1 mv/v	—	10	1.640
156		1100 + j6300	300 + j1600	1180 + j602	1 mv/v	—	10	1.600
9.2		22 + j81	17 + j83	27 + j13	30	—	10	1.640

COMPANY, INC.
E N N A

- ★ Extreme Reliability ★ Light Weight
- ★ Highest Accuracy ★ Tight Coupling
- ★ Environmentally Qualified ★ Low Noise
- ★ Low Phase Shift ★ High Torque
- ★ Matched Impedances ★ Low Friction
- ★ Low Heat Rise ★ Early Delivery
- ★ Special Units ★ Cost No More

SYNCHROS are our business

In addition to the wide variety of standard units shown, we also produce an equally large number of special units on special order in production quantities for which we are already tooled.

For more complete information on our synchros including Typical System Measurements, write for booklet SC-3 or phone MADison 6-2101 (Suburban Philadelphia).

NAVY BuOrd SYNCHROS



½ Actual Size

Central Electric Precision for standard Navy BuOrd units. If your specification requires performance to BuOrd drawings and your system can take advantage of exceptional accuracy, CPPE can hold extra close error spread and accuracy tolerances. See CG-15-MB-1 in the tables.

PRECISION RESOLVERS

Precision Computing Resolvers with functional accuracies of the order of 1% and transformation ratios 10 are currently being constructed in the size 15 class for special applications. Contact CPPE for applications involving the use of Precision Resolvers in all sizes.



½ Actual Size

SIGMA SENSITIVE RELAYS

Prices shown are list, for quantities from 1-19. Discounts are available for quantities above 19, unless otherwise noted. Price range is stated, since the price of a particular relay depends on coil resistance, mounting style, enclosure, etc., and is subject to change.

GENERAL CLASSIFICATION	SIGMA SERIES	ELECTRICAL CHARACTERISTICS				APPLICATION NOTES
		Maximum Contact Arrangement	Contact Rating (amp.)	Sensitivity Range (mw. unless specified)	Price Range (List)	
General Purpose Sensitive DC	4	SPDT	2.0	20 or 50	5.50-11.50	Medium price, sensitivity, and precision.
	5	SPDT	.25-3.0	1-100	7.50-22.25	High sensitivity, shock resistance, stability, and vibration resistance.
	11	SPDT	1 or 5	50 or 200	1.50- 2.20	Low price, small, light, four mounting styles, including one for printed circuits. Unenclosed form only.
	41	SPDT	1-5	35-200	3.50-10.15	Low price, long mechanical life.
	42	DPDT	2 or 5	100 or 200	5.75-13.75	Double-pole version of Series 41 with many of its features.
Miniature General Purpose DC	22	SPDT or DPDT	1 or 2	20-80	16.00-22.50	Miniature hermetically sealed relay. Vibration and shock resistant.
	26	SPDT	.5-2	4-20	6.80-13.80	"Stripped down" 22; can be used without enclosure; small, considering sensitivity.
Sensitive AC	5	SPDT	0.5-3	20-150	10.00-19.75	Series 5 DC with internal rectifiers for various AC voltages.
	41	SPDT	2 or 5	.06-0.4 v-a	3.50- 9.45	Sensitive shaded pole, low price, long life, extremely quiet; voltage or current-operated, 16 — 400 cycle versions.
	42	DPDT	2 or 5	0.3 or 0.5 v-a	5.75-16.00	More economical of power than most competitive types; (Also, see note above.)
Polar 3 Position (Null-seeking, center-stable)	6	4PDT	2 or 5	8-44	22.00-38.00	High gain (ratio of controlled power to input power); also available as spring biased (Form Y) and latching or side-stable (Form Z).
	23	SPDT or DPDT	2.0	6-24	30.00-36.00	Compact, sensitive; center-stable by virtue of magnetic configuration; also available biased polar (Form Y).
	72	SPDT	1.0	0.2-1.0	30.00 up	Center-stable version of high speed pulse relay. Best for "dithering" systems. Proportional armature motion without detent.
High Speed	41	SPDT	1.0	35-150 (static)	3.50-10.15	Keying relay; clean, bounce-free pulses on normally open circuit at speeds up to 100 pps.
	72	SPDT	0.5	0.15-1.5 (static)	30.00 up	Polar, side-stable (Form Z). Fast clean switching up to 500 operations per second for telegraphy, computers, etc. Life of 500,000,000 operations at 60 ma. 120VDC inductive load without maintenance.
25 Amp. Sensitive Contactors	51	SPST (NC)	25	100	9.00- 9.50	Developed for switching 10 amp. incandescent lamp loads, with inrush ratio of 10:1. Coil circuit signal failure closes circuit, thus useful in fail safe alarms. Unenclosed only.
	61	DPDT	20	225 or 450	18.00-26.50	Polarized permanent magnetic latching contactor; useful in battery-energized control systems, production machinery controls, etc.
Relays for Radio-Controlled Models, Toys, etc.	4F	SPDT	2.0	20 or 50	5.50- 6.50	Medium sensitivity, high reliability, easy mounting and adjustment. Balanced armature — operates in any position.
	5F	SPDT	.025-3	1-100	7.50-12.50	Extreme precision; rugged — undamaged by 500 g shock. Good in condenser time delay circuits, holding during pulse trains.
	11F	SPDT	1 or 5	50 or 200	1.50- 2.20	Midget, low cost DC relay. For its ratings, a good combination of high quality and low cost.
	26F	SPDT	0.5	4	6.80- 9.80	New, miniature version of Series 5 designed especially for low power R-C circuits. Rugged, weighs 2 oz., allows use of less plate current thus prolonging tube life.
	41F	SPDT	1 to 5	35-200	3.50- 4.85	More switching capacity than 11F. Special versions to handle even higher load currents.

OTHER SIGMA PRODUCTS

DEFINITION	SIGMA DESIGNATION	PRICE RANGE (List)	BASIC DESCRIPTION
High Speed electrically-operated counter	Cyclonome* Pulse Counter Series 9	85.00 up	Counting speed 8000/min. (max.). Stepping motor with one moving part drives 6-figure Veeder-Root register.
Stepping Motor	Cyclonome* Stepping Motor Series 12	35.00 up	Used in Series 9 Counter above. Analogous to synchronous AC motor capable of starting and stopping each half cycle, at frequencies from 0-130 cps. Can be arranged to operate on DC pulses.
Magnetic-Amplifier Relay	Series 8000	60.00 up	Magnetic amplifier combined with Sigma relays. For control of 1 amp. outputs on inputs too low to operate relays directly, in the order of .1 microwatt.
CdS Photocell-Relay Unit	CdS Photorelay, Model 1	12.00	Tubeless, plug-in control package consisting of broad area cadmium sulfide cell and Series 41 relay. For "light-no light" applications such as flame-out controls, elevators, automatic bottle washing machines.
Telegraph Relay Test Set	Model 4501 Test Set	325.00 net only	For operational checking of Sigma Series 72, 7; WE 255A, WE 215, and similar telegraph relays. Measures operating values, bias, contact efficiency, insulation. Standard relay rack panel.





72



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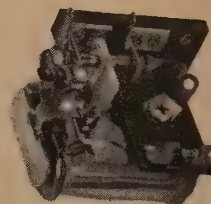
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42



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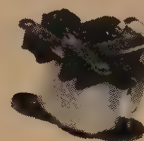
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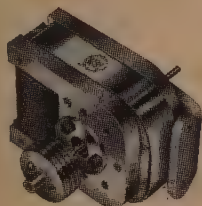


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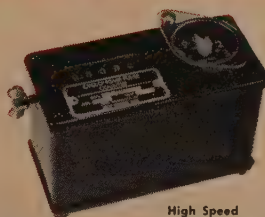
SIGMA SENSITIVE RELAYS



51



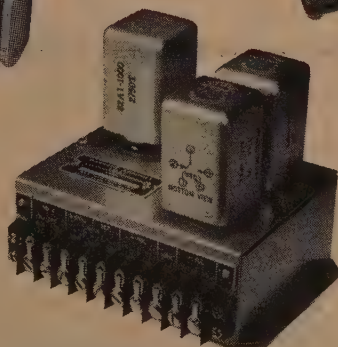
Stepping Motor



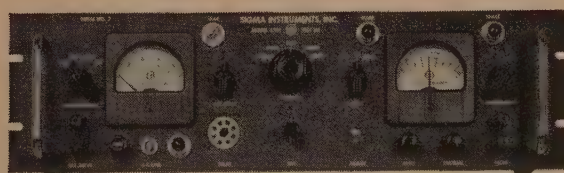
High Speed
electrically-operated
counter



CdS Photocell-Relay
Unit



Magnetic-Amplifier
Relay



Telegraph Relay
Test Set

SIGMA INSTRUMENTS, INC.
180 Pearl Street, So. Braintree 85, Massachusetts

Celco

Design, Development DEFLECTION YOKE TRANSFORMERS

For...Military and Commercial Avionics

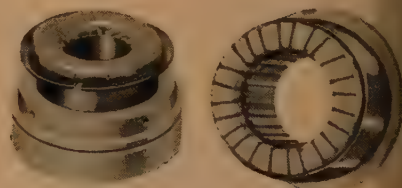
Leading system manufacturers now depend on CELCO for their difficult and critical applications on many of these components.

Our design development, production and quality control experience — combined with CELCO's highly skilled operators, production foremen and engineers — comprises a team that has proven their outstanding performance for quality components.

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Celco

We specialize in the design and manufacture of **PRECISION DEFLECTION YOKES** for military and commercial applications. CELCO can give you immediate engineering evaluation on your critical display problems.



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COILS FOR TRAVELING WAVE TUBES — precision wound for minimum transverse magnetic fields. High temperature windings are a CELCO engineering development —

Unit illustrated is 12" long.



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HIGH TEMPERATURE TRANSFORMERS — high temperature windings and impregnations on CELCO TRANSFORMERS permit high operating temperature with reduced size and weight.



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MINIATURE TRANSFORMERS & SATURABLE REACTORS — specially produced for the Transistor and Plug-in type amplifier assembly. CELCO designs these units wherever reduction in size and weight must be made.

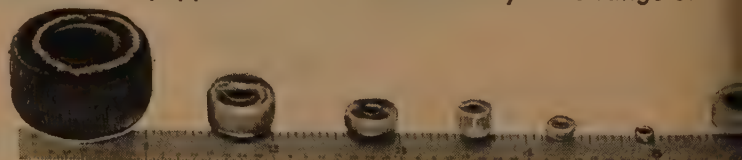


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TOROIDAL COILS — CELCO is equipped to cover an extremely wide range of toroidal windings.

No. 50 wire on a .062" ID Toroid

No. 15 wire on 9" OD Toroid



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Celco

and Production of:

MAGNETIC AMPLIFIERS AIRCRAFT MOTOR COMPONENTS

Nuclear and Computer Industries

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MAGNETIC AMPLIFIERS—encapsulated with epoxy resins or silicone rubber. CELCO experience with proper treatment of Toroidal Coils assures designed performance.



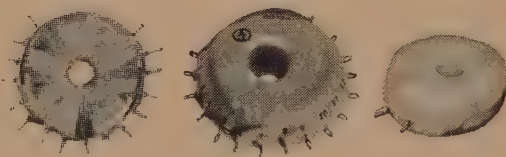
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TOROIDAL COMPONENTS — for use in system assemblies. Sub-assemblies of chokes, Transformers and Saturable Reactors are manufactured at CELCO for packaging into a single unit.



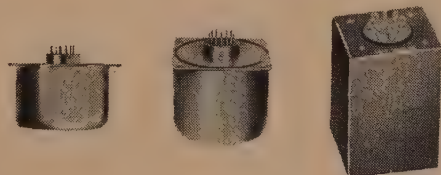
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PRECISION TRANSFORMERS — CELCO develops Precision Transformers for such applications as Computer Components with high accuracy of turns ratio and output voltages.



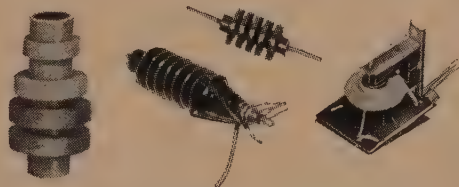
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HERMETICALLY SEALED MAGNETIC AMPLIFIERS & TRANSFORMERS — with various types of terminations, evacuation and inert gas pressurization give CELCO components minimum weight with high-breakdown voltage resistance.



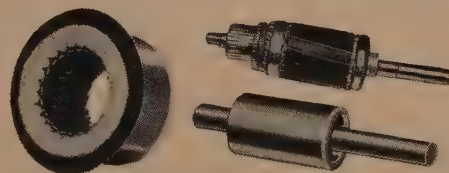
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R.F. CHOKES, TRANSFORMERS—specialized universal winding types of coils and assemblies. These CELCO windings are used when minimum distributed capacitance is required and space does not permit use of mechanical supports.



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MOTOR COMPONENTS—Centrifugally cast squirrel cage rotors for low inertia motors, armatures, stators, field coils and special type rotor coils — are a CELCO production specialty.



Call DAVIS 7-1123 —for immediate engineering evaluation price and delivery quotations on any of these component requirements.

Your plant is only hours away by the Celco Air Fleet



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DESIGN ACHIEVEMENTS WITH SUPRAMICA* ceramoplastics

SUPRAMICA ceramoplastics

MOLDED OR MACHINABLE HIGH TEMPERATURE INSULATION

Supramica ceramoplastics, the world's most nearly perfect high temperature insulations, are formulated with SYNTHAMICA* synthetic mica. Supramica possesses high temperature and thermal shock resistance, and complete dimensional stability. Thermal expansion coefficients are the same as steel. They have low electrical loss, excellent arc resistance, high dielectric strength, and are impervious to moisture, oil and organic solvents, with permanent resistance to radiation.

SUPRAMICA* 560 — New insulation for continuous operation at 500° C (932° F). Lightweight material can be precision molded with fragile inserts . . . specified for conditions which no other material can meet! Specific gravity similar to that of aluminum or mineral-filled polyesters . . . perfect for relay bases, connectors, radomes, tube sockets and other components for high temperature use.

SUPRAMICA* 555 — Precision-molded ceramoplastic having high-temperature endurance up to 750° F. Moldable with or without inserts.

SUPRAMICA* 500 — Compression-molded ceramoplastic sheets and rods for use at temperatures up to 900° F. Readily machinable; not precision moldable. Inserts must be cemented.



High-temperature relay and switch parts precision molded of SUPRAMICA 560 ceramoplastic



Stable tuner base precision molded from SUPRAMICA 555 ceramoplastic with fragile silver ribbon insert



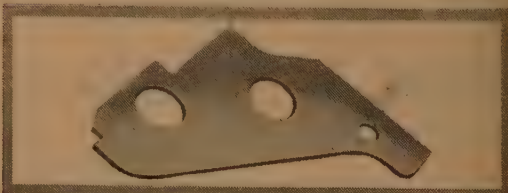
Insulated spark gap cover plate fabricated from SUPRAMICA 500 ceramoplastic



High shock potentiometer parts precision molded with steel supporting inserts — MYCALEX 410 glass-bonded mica



Radar insulating parts fabricated from MYCALEX 400 glass-bonded mica



Circuit breaker arc chute fabricated from MYCALEX 385 glass-bonded mica

MYCALEX* glass-bonded mica . . .

MOLDED OR MACHINABLE ELECTRICAL INSULATION

Mycalex glass-bonded mica formulations have been recognized for many years as high-temperature, high-frequency insulation . . . impervious to oil and water, resistant to high temperatures, with total, permanent dimensional stability and thermal expansion coefficient equivalent to that of insert metals, . . . resistant to radiation.

MYCALEX 410* Glass-bonded mica precision-molded with or without inserts, for applications involving temperatures up to 650° F.

MYCALEX 400* Standard compression molded glass-bonded mica for operating temperatures to 850° F. Readily machinable, but not moldable. Inserts must be cemented.

MYCALEX* 385 Glass-bonded mica with excellent resistance to circuit breaker arcing and thermal shock, for continuous operating temperatures up to 700° F. Readily machinable, but not moldable in intricate shapes.

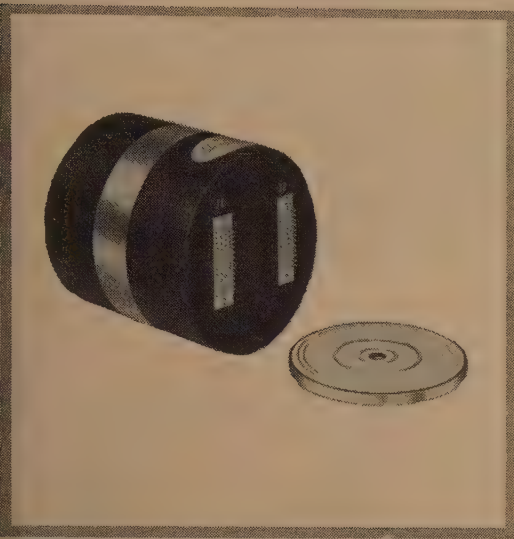
MYCALEX* K (machinable) and **KM** (moldable) Glass-bonded mica capacitor dielectrics with higher dielectric constant indicated by numbers 10, 20, 30.

* "SUPRAMICA", "MYCALEX", "400", "410", are registered trade-marks of MYCALEX CORPORATION OF AMERICA; "500", "555", "560" and "385" are trade-marks of MYCALEX CORPORATION OF AMERICA.

"SYNTHAMICA" is a trade-mark of SYNTHETIC MICA CORPORATION, a subsidiary of MYCALEX CORPORATION OF AMERICA.



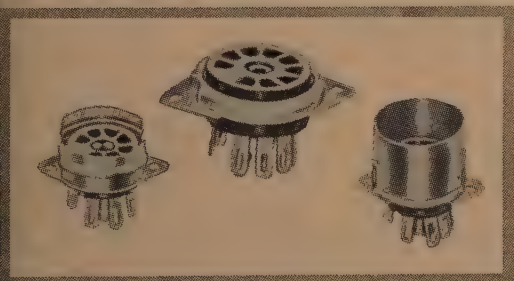
AND MYCALEX* glass-bonded mica



MYCALEX TM Commutation Switch with commutator plates precision molded of SUPRAMICA 555 ceramoplastic. Plate is CP-346, 2-poles, 360 contacts.



Crystals of SYNTHAMICA synthetic mica



MYCALEX precision molded tube sockets withstand high temperatures and rugged service. Standard miniature and subminiature types.

Write today for complete technical information concerning any of the above products or materials.

MYCALEX
CORPORATION OF AMERICA

GENERAL OFFICES AND PLANT: CLIFTON BOULEVARD CLIFTON, NEW JERSEY	EXECUTIVE OFFICES: 30 ROCKEFELLER PLAZA NEW YORK 20, NEW YORK	SALES OFFICES: CHICAGO — DAYTON LOS ANGELES — MIAMI WASHINGTON
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MYCALEX TM telemetering switches

WITH SUPRAMICA CERAMOPLASTIC COMMUTATOR PLATES ASSURE RELIABLE OPERATION UNDER EXTREME CONDITIONS

Precision-molded Supramica ceramoplastic commutator plates have introduced a degree of accuracy and sustained dependability never before approached in telemetry. Where warpage of only .0002" of the commutator plate will distort and destroy the value of the signal, these precision switches withstand extremes of temperature, altitude, shock and vibration and deliver a clean, unvarying signal . . . tests show completely satisfactory performance of these switches after more than 1000 hours at 1200 RPM.

In military and industrial applications, Mycalex TM Telemetering Switches with Supramica ceramoplastic commutator plates have made significant contributions to the reliability of electronic equipment.

MYCALEX ELECTRONICS CORPORATION

SYNTHAMICA* synthetic mica

Available in commercial quantities, as powder, flake or crystal, and in chemically bonded sheets for all applications in the electronic, communications and related industries. Manufactured from readily available native raw materials, Synthamica synthetic mica is an important contribution to the development of military and civilian electronics.

Synthamica synthetic mica is chemically pure, hydroxyl free, and will withstand temperatures almost twice as high as its natural counterpart. One of the outstanding properties of this crystal clear material is the freedom from outgassing at elevated temperatures and pressures.

SYNTHETIC MICA CORPORATION
A Subsidiary of MYCALEX CORPORATION OF AMERICA

MYCALEX tube sockets

High temperature tube sockets made from Supramica ceramoplastic and Mycalex glass-bonded mica are produced under exclusive license of Mycalex Corporation of America.

Supramica 560 ceramoplastic tube sockets have successfully passed operating tests at 500° C.

MYCALEX TUBE SOCKET CORPORATION

WORLD'S LARGEST MANUFACTURER OF GLASS-BONDED MICA AND CERAMOPLASTIC PRODUCTS

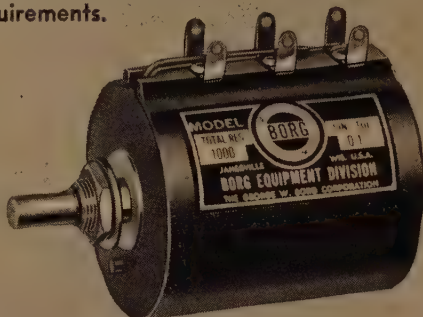
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900
series



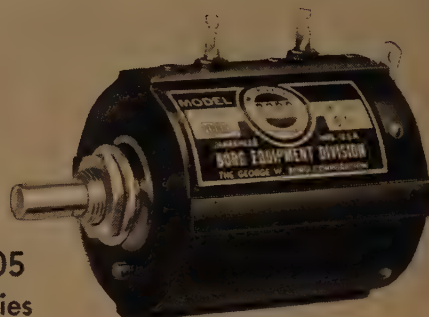
The new standard of high-precision potentiometers. Advantages include greater accuracy, finer resolution, lower torque, longer life and better performance under adverse environmental conditions. 48 standard models meet most special design requirements.

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Precision potentiometers that offer your products a price advantage in today's competitive markets. Engineered for easy installation with readily accessible terminals. Accurate, dependable, long lived.

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Long a favorite for both military and commercial purposes. Has proved itself exceptionally rugged and dependable in years of use on many mobile and stationary applications.

BORG MICROPOTS

precision potentiometers with

UNLIMITED DESIGN APPLICATIONS...

MORE PROFITABLE PRODUCTION POSSIBILITIES

Your job is made easier when you use Borg Micropots. They're versatile . . . they're flexible. Standard models can be readily adapted to meet the special requirements of a wide variety of applications. What is more they have many exclusive advantages: — — absolute linearity, permanent accuracy, long life, and dependability. You can rely on them to meet your

most rigid commercial and/or military specifications. They're readily available too. Production has been stepped up to assure prompt delivery of any model in any quantity. We invite consultation with your Borg "Tech-Rep". His helpful advice can often save you time and money. Write us today for his name and address. It will pay you to know him.

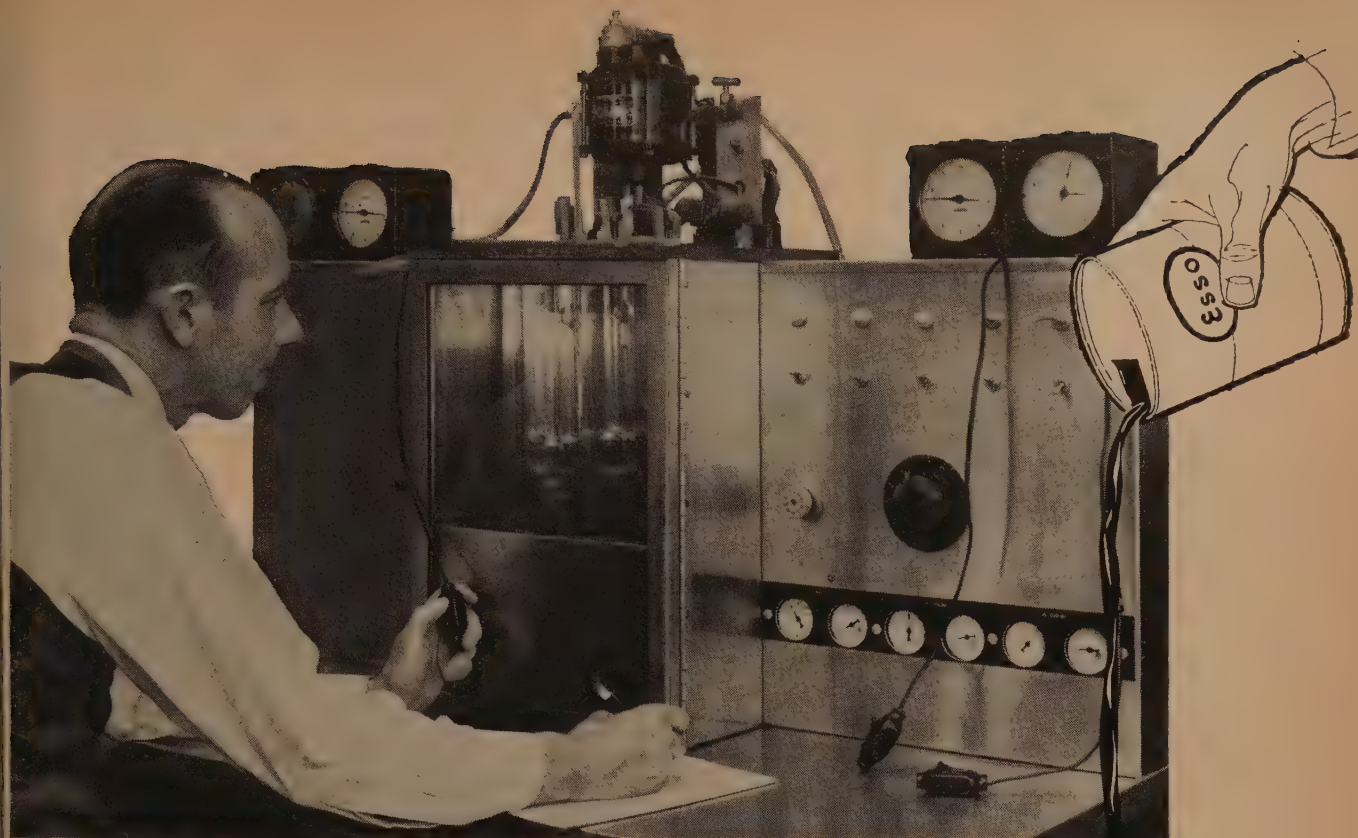
BORG EQUIPMENT DIVISION

The George W. Borg Corporation

Janesville, Wisconsin

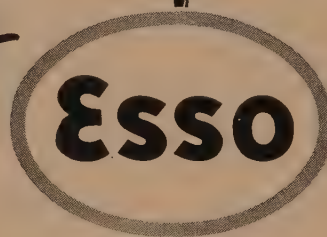


Built by Borg



Helping determine the viscosity index of hydraulic oils and jet engine fuels for Esso Standard Oil.

Where Split Seconds Count ...



There you will find rugged, reliable Standard Electric Precision Timers playing an important part in laboratory and development research, in production and final inspection.

The Esso Standard Oil Company, General Electric, Bell Telephone, American Brass — among other giants of industry — depend on Standard Precision Timers for accurate measurement of elapsed time in split seconds.

Measure time as close as 0.001 of a second



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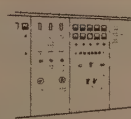
HOSPITAL SIGNALLING



ANALOGUE COMPUTERS



ELECTRIC CLOCK SYSTEMS



LABORATORY PANELS



PRECISION TIMERS and TACHOMETERS

EDISON ELECTRONIC CONTROLS AND COMPONENTS

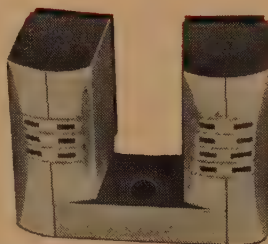
STANDARD AND CUSTOM-DESIGNED MINIATURE, HI-TEMP SERVO SYSTEMS AND COMPONENTS

The Edison Instrument Division is now offering design engineers an extensive line of miniature and subminiature Hi-Temp Servos Motors and Servo Components... in addition to a complete facility for custom designed units and servo sub-systems.

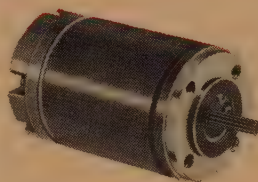
Precision production and rigid quality control inspection have made these "customized" components possible. In addition to these special units, Edison also manufactures an extensive line of standard servo motor and servo motor-generator combinations from size 8-up.



EDISON SIZE 8 SERVO MOTOR



TYPICAL EDISON MAGNETIC RECORDING HEAD



EDISON SYNCHRO CONTROL TRANSFORMER S211-2-1

OPERATING CHARACTERISTICS:

1. Type of motor: Two phase servo
2. No load speed (min. RPM): 6500
3. Stalled torque (min. oz. in.): .30
4. Power input at stall (nom. watts/phase): 3.1
5. Speed at max. power output (RPM): 4000
6. Torque at max. power output (oz. in.): .18
7. Theoretical acceleration at stall: 20,600 radians/sec.²
8. Time constant: .036 sec.
9. Duty: Intermittent at stall

SPECIFICATIONS:

Track Width	Channel Spacing	Outline	Type	Gap Length	Induct. MH	Resis. Ohms	Bias MA.	Current MA.	At Tape Speed 7 1/2" / Sec.		Magnetic Shielding	Interleaving
									Peak Freq. KC	Output OBD = 1mV		
.033	.100	C13497	Rec.	.00075	8.0	24	5	0.8			X	X
			Play	.00025	285	290			3	0	X	X
.050	.140		Rec.	.00075	1.1	2.2	15	2.0			X	X
			Play	.00025	85	6.1			3	-3	X	X
.250		A13351	Rec.	.00075	30	58	15	2.0				X
			Play	.00025	500	320			3	+18		X
.254		A11352	Erase	.006	0.40	0.40						

NOMINAL CHARACTERISTICS

Input Voltage	11.8 volts, 400 cycles, single phase. Excitation supplied by the stator output voltage from a Presyn transmitter.
Rotor Resistance	90 ohms
Brush Contact Resistance	.5 ohm
Stator Resistance	15 ohms
Rotor Output Voltage	22.5 volts
Accuracy	7 minutes max.
Operating Temperature	-55°C to +95°C
Friction at 25°C	3 gm. cm.
Shaft End Play	.0015 inch max.
Shaft Radial Play	.0005 inch max.

Edison also manufactures a quality line of synchro transmitters, synchro receivers, synchro resolvers, and synchro differentials.

HERMETICALLY SEALED THERMOSTATS

Exacting temperature control requirements can be fulfilled using Edison's precision-made, bimetallic thermostats. These hermetically sealed units, filled with an inert, arc quenching gas, are ideal for such critical applications as crystal oven ambient control and other electronic component requirements. Edison thermostats have been used for many years as fire detectors in marine and other industrial applications because of their lifetime protection from corrosion and contamination.



S1-1A
S1-2A

STANDARD TYPES

S1-1A	S1-2A
Manufacturing tolerance: $\pm 0.5^\circ\text{C}$	Manufacturing tolerance: $\pm 2.5^\circ\text{C}$
Control sensitivity: Will hold temperature within $\pm 0.6^\circ\text{C}$ at low contact load when properly applied	Maximum load: 0.5 ampere; 1.0 ampere in alarm service
Maximum load: 1.0 ampere	Maximum voltage: 250 a-c
Maximum voltage: 250 a-c	Maximum temperature: 190°C
Maximum temperature: 150°C	Diameter: .388 inch
Diameter: .388 inch	Length: 2 1/2 inches
Length: 2 1/2 inches	



D8-2A

D8-2A
Manufacturing tolerance: $\pm 2.5^\circ\text{C}$
Maximum load: 8.0 amperes
Maximum watts: 1000
Maximum voltage: 250 a-c
Maximum temperature: 320°C
Diameter: .550 inch
Length: 2 3/4 inches

Manufacturing tolerance: $\pm 5^\circ\text{F}$
Maximum load: 1 ampere at 115 volts a-c; 0.5 ampere at 115 volts d-c
Maximum voltage: 125 a-c or d-c
Maximum temperature: 350°F
Adjustability: $\pm 60^\circ\text{F}$ from original setting
Diameter: .318 inch
Length: 1 1/4 inches

When ordering any thermostat give following information:
Operating voltage and current
Temperature setting
Contact arrangement — are contacts to open or close on rising temperature?
Medium to be used in
Load — resistive or inductive



MECHANICALLY SEALED MINIATURE

FOR AIRCRAFT, MISSILES AND INDUSTRY

NEW EDISON MINIATURE TIME DELAY RELAY - MODEL 250

One of the oldest names in relays continues to improve the state of the art . . . now from Edison, a new miniature time delay relay specifically designed for missile and jet aircraft applications. This vibration resistant unit incorporates many design features.



MODEL 250

SPECIFICATIONS:

- 1) virtual elimination of contact chatter up to 1500 cps at 10 g's.
- 2) no resonance to 500 cps.
- 3) ambient compensation between -65°C and $+85^{\circ}\text{C}$. . . operation at higher temperatures when necessary.
- 4) contacts rated for 1 ampere at 27.5 VDC or 3 amperes at 115 volts AC.
- 5) extra-rigid construction for exceptionally high contact pressure.
- 6) can be mounted in any position without affecting operating characteristics. 7-pin plug-in or solder hook base.
- 7) hermetically sealed.

For more information, write for Bulletin #250.

EDISON STANDARD OCTAL TIME DELAY RELAY - MODEL 501

Years of Edison research and engineering have produced a widely-accepted line of hermetically sealed thermal relays . . . more than a half million have already been manufactured for use in cathode protection circuits, autopilots, gyro stabilizers, and other electronic equipment.



MODEL 501

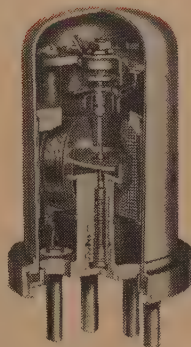
SPECIFICATIONS:

- Time delays: 2 seconds to 300 seconds
 Heater voltages: 6.3, 26.5, and 117 (intermediate voltages available in special circumstances)
 Heater input: 5 Watts nominal (continuous excitation)
 Contacts: SPST normally open or closed.
 Rated for 6 amperes max. at 450 volts a-c or d-c.
 Ambient: compensated for -60°C to $+85^{\circ}\text{C}$
 Shock: resists impact of 50 g's
 Vibration: resists $1/16''$ overall amplitude at 55 cps
 Tolerances: heater voltage: positive contact operation with variation of $\pm 10\%$.
 Operating time at 25°C : $\pm 15\%$ max.
 Weight: $1\frac{1}{4}$ to $2\frac{1}{4}$ oz.
 Seated height: $3\frac{1}{4}''$
 Diameter: 1.275" max.
 Base: intermediate octal

For more information, write for Bulletin #207.

EDISON SENSITIVE MAGNETIC RELAY

Polarized operating characteristic of this magnetic DC Relay makes it ideal for use as a null detector in ordinary bridge circuits. It can operate directly from a thermocouple or photocell. Both coils brought out to separate pins in base make it easy to calibrate and versatile to apply. Hundreds of thousands of these relays are now in use in airborne control equipment.



MODEL 220

SPECIFICATIONS:

- Contacts: SPST or SPDT normally open or closed.
 Rated for $\frac{1}{3}$ ampere at 28 volts d-c.
 Hermetically sealed: Model 220
 Gasket sealed: Model 219
 Vibration and shock resistant: relay unenergized will withstand shock of 50 g's in all planes without damage or change in calibration
 Closing current: contacts close on input currents from 30 microamperes d-c to 12.5 milliamperes d-c. Lower closing currents available in special circumstances.
 Coils: Formvar-coated copper. Resistances from 0.5 ohm to 23,600 ohms. Normal closing power may be increased 10,000 times without adverse effects.
 Weight: .15 lb. max.
 Seated height: $2\frac{1}{32}''$ max.
 Base: plug-in, printed circuit or solder hook

For more information, write for Bulletin #3037.

EDISON CURRENT RATIO INDICATOR - MODEL 222-1J

Designed with a DC galvanometer movement having fixed coils and a moving magnet, this meter indicates the ratio of two direct currents.

With equal current in both field coils the pointer will indicate unity ratio (1). Increasing one current over the other pulls the pointer right or left of center to indicate a ratio. A proportional increase or decrease in current through both coils does not affect the indication because the pointer assumes the resultant rather than the absolute measure of either



MODEL 222-1J

SPECIFICATIONS:

- Accuracy: Scale tolerances are based on an angular tolerance of 1° .
 Coil Current Strength: For accurate calibration the current in either coil should be between 2 ma. minimum and 50 ma. maximum.
 Depth: $3\frac{1}{16}''$
 Dial Diameter: $2\frac{3}{4}''$

EDISON RESISTANCE TEMPERATURE DETECTORS

Edison RTD's are designed to measure temperature in all types of industrial and military applications. They form one arm of a Wheatstone bridge in ratio resistance temperature indicators, overtemperature alarm systems and systems for temperature control.



Model 232N90-2 (MIL-B-7990) hermetically sealed, stem-sensitive.
Model 232N90-4 Temp. range: $-70 +300^{\circ}\text{C}$.

Model 176N90D (Dual winding) hermetically sealed, stem-sensitive.
Temp. range: $-70 +300^{\circ}\text{C}$.

Model 179N90 (MIL-B-7370A) hermetically sealed, stem-sensitive.
Temp. range: $-70 +300^{\circ}\text{C}$.

Model 233N50 tip-sensitive, cylinder head. Temp. range: $-50 +300^{\circ}\text{C}$.

HERMETICALLY SEALED CURRENT LIMITING SWITCH

Designed particularly to protect input circuits of radio receivers from over-currents induced by nearby transmitting equipment, this SPST normally closed, hot wire switch limits the current flow through the wire when a critical value is revealed.

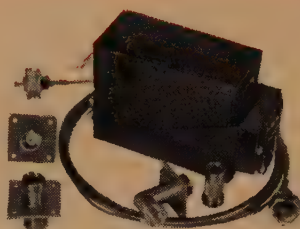


SPECIFICATIONS:

Operating current: 125 milliamperes ± 25
Ambient: Compensated for 0 to 90°C
Shock: No damage under 60 g in all directions
Diameter: 9/16 inch nominal
Length: $2\frac{1}{4}$ inches

FIRE AND OVERHEAT SYSTEMS FOR AIRCRAFT

Edison Fire and Overheat Systems are available in three styles including continuous cable, thermocouple, and RTD's. Each style is approved for both military and civil aircraft in accordance with the latest applicable specifications.



TYPE B CONTINUOUS
CABLE FIRE DETECTION

EDISON MONITORING SYSTEMS

SPECIFICATIONS:

Control Assembly
Voltage: 28 volts d-c*
Dimensions: $3\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ inches (approx.)
Weight: 0.8 lb. (approx.)
* also available for 115 v. a-c 400 cycle power.

(SAME CONTROL USED WITH RTD'S GIVES ALARM
AND/OR INDICATION OF OVERHEAT CONDITIONS)

PRESSURE INDICATING SYSTEMS FOR AIRCRAFT

This system gives the pilot a continuous indication of oil pressure for jet and/or reciprocating type engines. This non-electronic, shock proof unit can be mounted directly on the engine without external tubing connections. Pressure signal is carried through three copper wires to the indicator on the instrument panel.



TRANSMITTER, MODEL 218-100 INDICATOR, MODEL 217-100

SPECIFICATIONS:

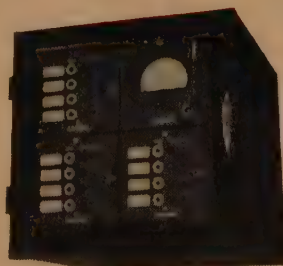
SYSTEM
Power: 26 volts single phase 400 cps
Accuracy: $\pm 2.75\%$ full scale
Pressure altitude: 85,000 ft. (0.65" Hg)
Distance between components: 500 ft. of AWG20 lead wire between indicator and transmitter will affect reading no more than 1.0%

TRANSMITTER, MODEL 218-100
Power consumption: 0.9 watt max.
Weight: 2.0 lbs.
Diameter: $2\frac{3}{16}$ "
Length: $4\frac{13}{16}$ " overall
Pressure range: 0 to 100 psi
Environmental
Max. temperature: $+232^{\circ}\text{C}$
Low temperature: -65°C
Vibration: Passes MIL-E-5272, Procedure II 5.0 to 500 cps continuously changing
Acceleration: 20 g

INDICATOR, MODEL 217-100
Power consumption: 0.6 watt max.
Weight: 0.5 lb.
Dial: standard 2-inch diameter
Length: $2\frac{1}{2}$ " overall
Pressure range: 0 to 100 psi
Environmental:
Max. temperature: $+71^{\circ}\text{C}$
Low temperature: -65°C
Vibration: Passes MIL-E-5272, Procedure I 5.0 to 55.0 cps, amplitude .018 to .020

OMNIGUARD TEMPERATURE INDICATING AND ALARM SYSTEMS FOR INDUSTRY

Omniguard is specifically designed for constant protection against damage caused by excessive temperatures throughout industry. This monitor unit is designed in modular units of 4 points each. A single indicator plugs into any point for temperature reading. This inherently simple system has no moving parts (except for alarm relay contacts), no electronic tubes and no expensive wiring between components. A small plug-in control box, an indicator and resistance temperature detectors make up the entire system.



SPECIFICATIONS:

Voltage: 115 volts, 60 cycles
Power drain: 25 VA maximum
Voltage error: $\pm 2^{\circ}\text{F}$ maximum from 100 to 130 volts
External alarm: 1 per monitor. Contact rating 150 watts or 3 amp. non-inductive load.
Indicator requires no electrical connections. Power and resistance reading is carried through reeled cord when plugged into jack in face of monitor.

FOR MORE INFORMATION ABOUT ONE OR ALL
OF EDISON'S PRODUCTS, WRITE TODAY.
PLEASE MENTION YOUR APPLICATION.

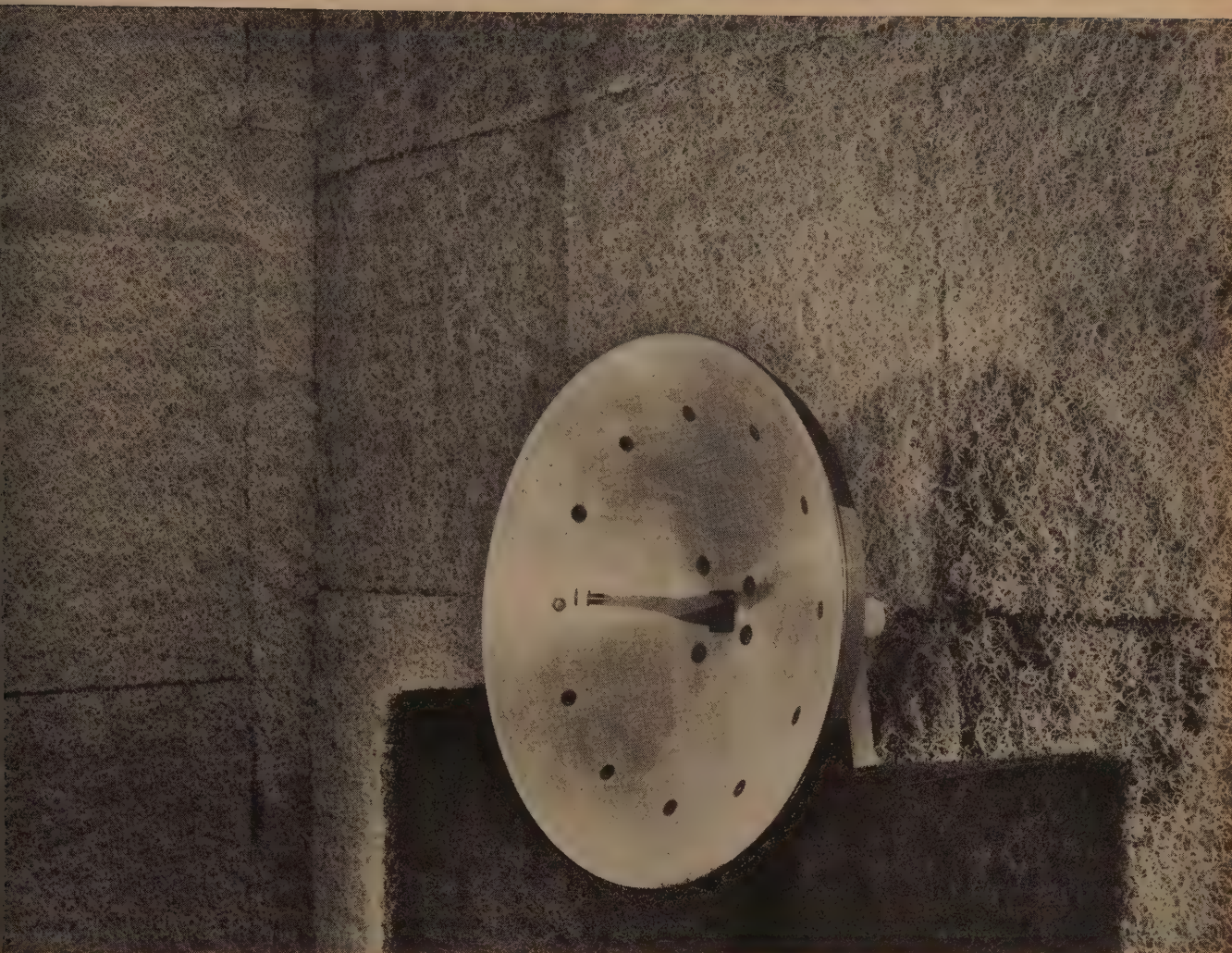
**Thomas A. Edison
INDUSTRIES**

INSTRUMENT DIVISION
81 LAKESIDE AVENUE
WEST ORANGE, NEW JERSEY

PLANTS: WEST ORANGE, NEW JERSEY
ROSELAND, NEW JERSEY

**McGraw
Edison**

B.F. Goodrich



Best long range investment for indoor antenna testing and free space chambers

Manufactured to Military Specifications, B. F. Goodrich Microwave Absorbers provide the most accurate reflection-free rooms for the measurement of microwave antenna patterns. As a result of thorough quality control and factory testing, B. F. Goodrich Microwave Absorbers consistently duplicate free space conditions indoors better than any other product.

In addition to outstanding electrical qualities, our absorber is light-weight, fire-retardant, easy to install. It will not deteriorate in performance when walked upon and has excellent water and weather resistant properties.

The material is currently being produced in a number of thicknesses providing broadband operation as low as 50 megacycles. Material can be furnished

List of B. F. Goodrich Broadband Absorbers			
Designation	Lowest Frequency*	Thickness	Maximum Reflection
12 CM	2500 mc	1½"-2"	2%
12 CM - 1%	2500 mc	1½"-2"	1%
12 CM - 30db	2500 mc	1½"-2"	0.1% at X-band. 2% elsewhere.
6 CM	5000 mc	1"	2%
30 CM	1000 mc	3½"-4"	2%
30 CM - 1%	1000 mc	3½"-4"	1%
60 CM	500 mc	7"-8"	2%
60 CM - 1%	500 mc	7"-8"	1%
100 CM	300 mc	10"-11"	2%
200 CM	150 mc	26"	2%
600 CM	50 mc	69"	2%
8 CM—glass fiber	3600 mc	1"-1½"	2%
4 CM—glass fiber	7500 mc	¾"	2%

Most of the above absorbers can be furnished with 0.1% maximum reflection at selected points in the frequency band.

*All perform up to 30,000 mc

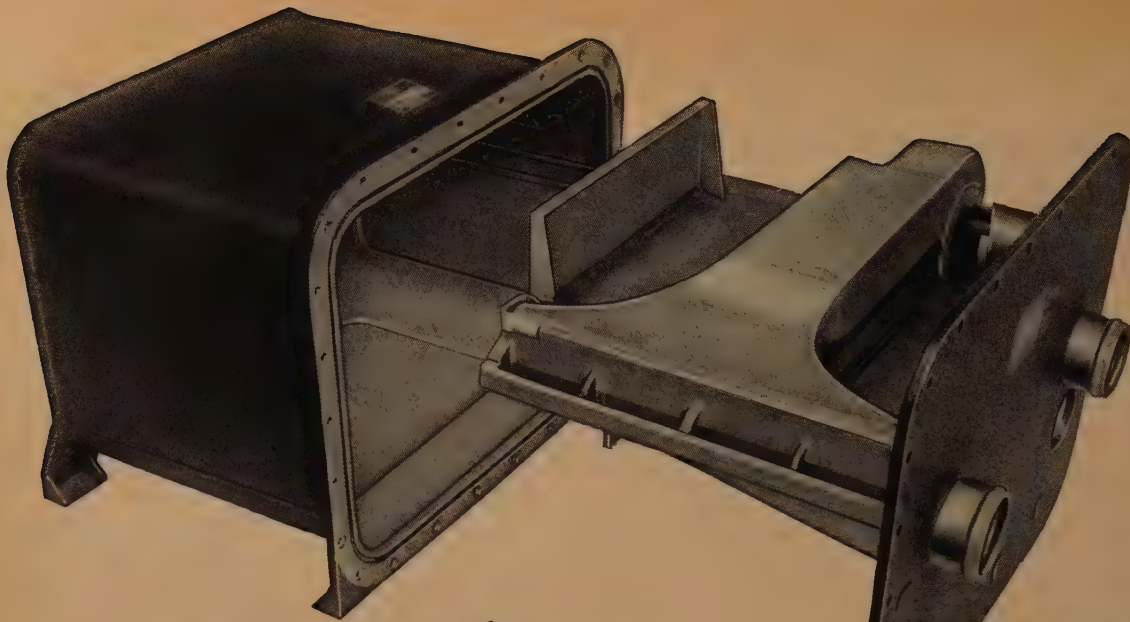
having less than 0.1% reflection at specific frequencies. For darkroom use, a special white compound can be applied to the surface of the pads to increase light reflectance.

When you're investing thousands, start right—specify B. F. Goodrich—the company with the *longest* experience and record for *consistently* high quality microwave material.

For new booklet on these absorbers write B. F. Goodrich Sponge Products, a division of The B. F. Goodrich Company, 386 Derby Place, Shelton, Connecticut.



Sponge Products



UAP-built

heat exchanger, chassis-case assembly for compact pressurized airborne electronics*



UAP dip-brazed heat exchanger is an integral part of the electronic components, chassis and principal structural member. All electronic components are mounted to the heat exchanger. Some assemblies dissipate heat from their surfaces to internal air circulated by a blower through the heat exchanger.

Others function as a "cold plate" by dissipating heat through their mountings by direct conduction to the cooling air flow. Ram air or refrigerated air may be used for cooling. The heat exchanger—electronic assembly may be removed from the case as a unit for ease of servicing.

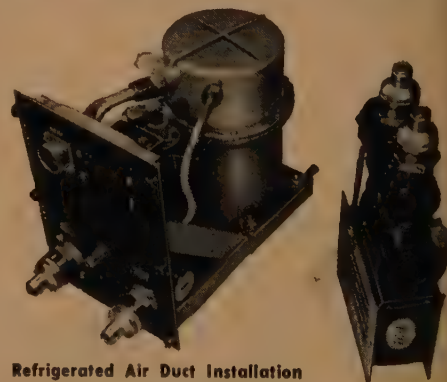
*Unit shown designed by Ohio State University Research Foundation
—Air Force Cooling Study Project, W. Robinson, Supervisor.

For information concerning watt dissipation, and other types of UAP cold plates call or write the nearest UAP Contractual Engineering Office:

CALIFORNIA • 1101 Chestnut St. • Burbank, Calif. VI 9-4236
NEW YORK • 50 E. 42nd St. • New York 17, N. Y. MU 7-1283
DAYTON • 1116 Bolander Ave. • Dayton, Ohio. MI 3841
CANADA • United Aircraft Products, Ltd., 5257 Queen Mary Road • Montreal, Canada . . . Elwood 4131



Ambient Installation



Refrigerated Air Duct Installation



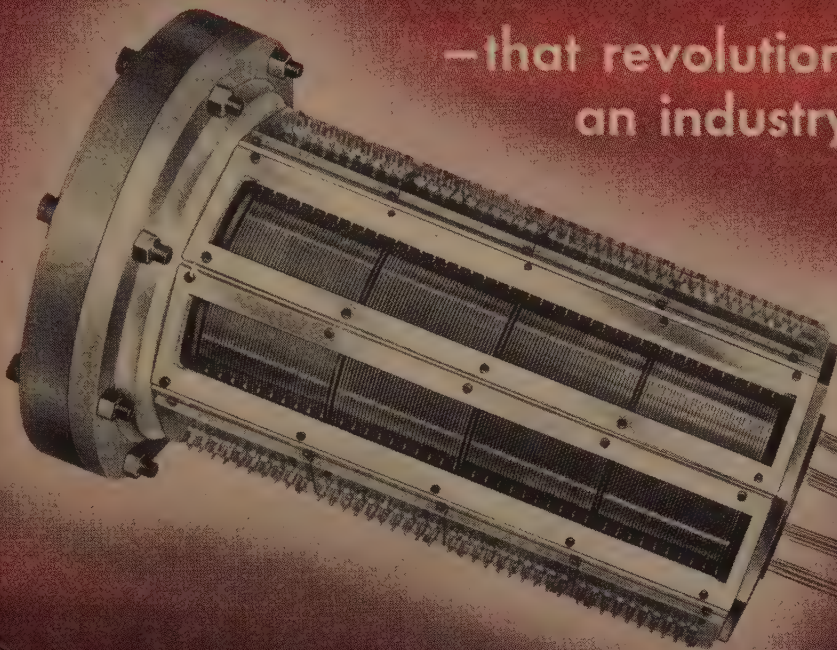
a famous family of aircraft essentials since 1929

UNITED AIRCRAFT PRODUCTS, INC.

1116 BOLANDER AVENUE, DAYTON, OHIO

A DESIGN CONCEPT*

—that revolutionized
an industry!



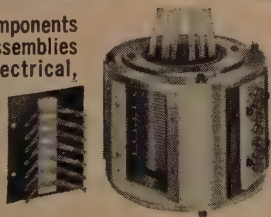
ELECTRO TEC

PRECISION MACHINED
ONE-PIECE CONSTRUCTION

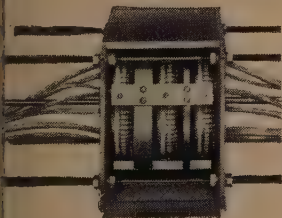
Diameters of multi-ring
assemblies from .035" to 36"



Individual components
or complete assemblies
to precise electrical,
mechanical,
and environ-
mental speci-
fications.



Uniformly hard rings,
low noise, minimum
friction and dimen-
sional stability.



SLIP RING & COMMUTATOR ASSEMBLIES

An Unmatched Record of Performance

Today, Electro Tec Slip Ring and Commutator Assemblies are the choice of leading aircraft, instrument, and component manufacturers throughout the world. Our units are selected for Gyro and Servo applications, for Telemetry and Radar devices, for Guidance systems, and Automation equipment... where sustained and reliable performance is a requisite.

Facilities Available to Serve You

Plants in South Hackensack, N. J., Blacksburg, Va., and Ormond Beach, Fla., are currently producing a wide variety of Slip Ring, Commutator, and Brush Block Assemblies, Precision Selector Switches, and Miniature Relays. Complete Engineering Facilities and Branch Sales Offices in Los Angeles, Minneapolis, Chicago, and Waltham, Mass. are geared to service your requirements.

Write for fully illustrated literature.

ELECTRO TEC CORP.
SOUTH HACKENSACK, NEW JERSEY

PRODUCTS OF PRECISION CRAFTSMANSHIP



*PATENT No.
2,696,570

Looking for reliability?

Where there must be no slipups, there will be no slipups, if you depend on CTC.

These components are guaranteed unconditionally in quantities from one to millions.

For samples, prices, write CAMBRIDGE THERMIONIC CORPORATION, 438 Concord Ave., Cambridge 38, Mass. West Coast stocks maintained by E. V. Roberts & Associates, 5068 West Washington Blvd., Los Angeles 16 and 988 Market St., San Francisco, California.

CTC
CAMBRIDGE THERMIONIC CORPORATION

*makers of guaranteed electronic components
custom or standard*



CTC QUALITY SHIELDED COIL FORMS

Miniaturized. Highly shock resistant. Mechanically enclosed, completely shielded for maximum reliability.



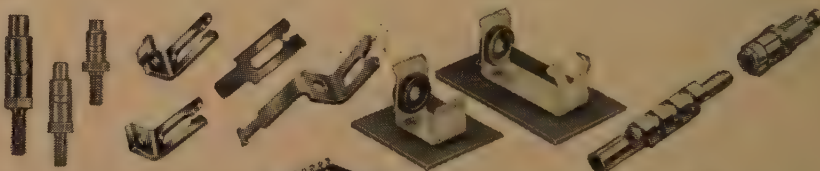
CTC QUALITY CAPACITORS

Miniaturized Variable Ceramic Capacitors that outperform much bigger capacitors. (Extreme right): Stand-Off Capacitors with ceramic dielectric. Rugged R-F by-pass capacitors for high quality equipment. Shock-, vibration-, humidity-resistant.



CTC QUALITY DIODE CLIPS

Seven different types, including spring-loaded units primarily for holding fragile diode pigtail leads from .005" to .085" in diameter. CTC also offers lines of quality battery clips and miniature plugs and jacks.



CTC QUALITY TERMINAL BOARDS

Custom-made, standard all-sets, standard ceramics. Variety of materials available — paper, cloth, nylon, glass laminates — phenolic, melamine, epoxy, silicone resins. Moisture — and fungus-proofed.



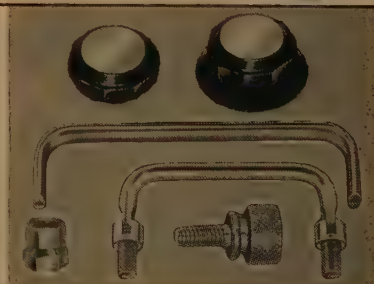
CTC QUALITY PERMA-TORQ COIL FORMS

Constant-tensioning devices for tuning cores of standard CTC ceramic coil forms. Keeps coils tuned as set despite shock, vibration.



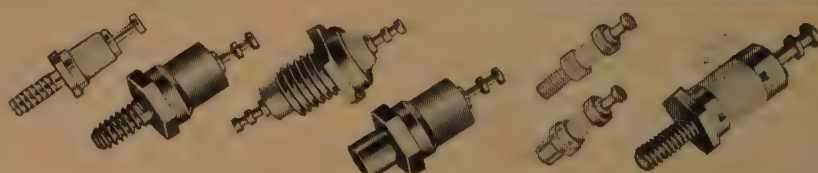
CTC QUALITY KNOBS AND PANEL HARDWARE

Selected materials, carefully processed and finished. Metal parts polished before plating. Hard-wearing surfaces, lasting lusters.



CTC QUALITY INSULATED TERMINALS

Wide variety of stand-off and feed-through models in Teflon and ceramic. Extremely resistant to shock, vibration, moisture and temperature. Solder terminals hold even after prolonged soldering operations.



CTC QUALITY PRINTED CIRCUIT COIL FORMS

Phenolic and ceramic types. Can be soldered after mounting. Available as forms alone or wound as specified. Two- to six-terminal models.



CONTROLLED POWER FOR RESEARCH AND INDUSTRY

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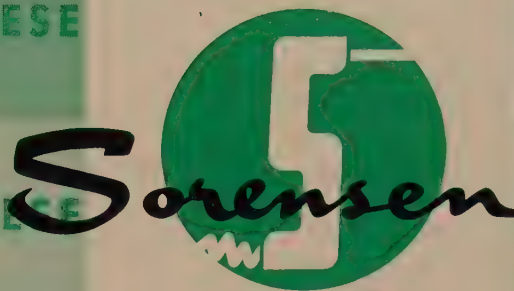
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AC

ELECTRONIC REGULATORS
•
**MAGNETIC
VOLTAGE REGULATORS**
•
400 CYCLE REGULATORS
•
TUBELESS REGULATORS
•
FREQUENCY CHANGERS
•
**VOLTAGE
REFERENCE SOURCES**

DC

**LOW VOLTAGE
HIGH CURRENT**
•
**HIGH VOLTAGE
LOW CURRENT**
•
**WIDE RANGE,
ADJUSTABLE OUTPUT**
•
**TUBELESS
REGULATED SOURCES**
•
**TRANSISTOR
POWER SUPPLIES**
•
**400 CYCLE
POWER SUPPLIES**

CONDENSED

**STANDARD
SPECIFICATIONS**

ORENSEN & COMPANY, INC., • SOUTH NORWALK • CONN

NOBATRONS (Reg. U.S. Pat. Off.)
(wide-voltage, high-current, regulated DC sources).
Precisely regulated, efficient and stable DC supplies
are ideally suited for laboratory and industrial
applications.

Models available (numbers indicate voltage & current)
E-6-15A, E-6-40A, E-6-100A, E-12-5,
E-12-15, E-12-50A, E-12-75, E-28-5, E-28-10, E-28-30,
E-28-70, E-28-150, E-48-15, E-125-10, E-200-5.

ELECTRICAL CHARACTERISTICS

Input 95-130 VAC, 1 ϕ , 50-60 cycles.
190-260 VAC, 1 ϕ , for E-28-70,
120/208, 3 ϕ , 4-wire wye for
E-28-150.
Reg. accuracy $\pm 0.2\%$ against line (105-125
volts or 200-240 volts).
 $\pm 0.2\%$ against load (1/10 to full)
Ripple 1% max. at 60 cycles (0.1% with
Filter Sections available for
units up to 50 amps.)
Output voltage
adjustment range 6 volt units,
5.4 to 7.7 volts.
E-12-50A, 9.0 to 17.6 volts.
E-12-75, 10.0 to 15.5 volts.
E-200-5, $\pm 50\%$.
all others $\pm 10\%$, $\pm 20\%$
Recovery time 0.2 seconds on all models but
E-28-70 (0.25 sec.) and
E-28-150 (0.3 sec.)



Model T50-1.5

NOBATRONS

Stable voltage, low cost tubeless supplies especially
designed for transistor circuit work. Excellent
voltage regulation and transient response for
load and load pulses. For normal line voltage
variations, the DC output voltage will remain within
tolerance limits.

ELECTRICAL CHARACTERISTICS

Model	T50-1.5	T60-5	T120-2.5
AC Input (60 ~, 1 ϕ)	95-130	95-130	95-130
DC Output Voltage (three ranges)	0-10 0-25 0-50	0-10 0-25 0-60	0-25 0-50 0-120
Output Current (amps.)	0-1.5	0-5	0-2.5
Regulation, line: 105-125 V for wider input	$\pm 1\%$ $\pm 2\%$	$\pm 0.5\%$ $\pm 1.0\%$	$\pm 0.5\%$ $\pm 1\%$
Internal Resistance, typical (ohms)	1.2	.35	1.3
low-voltage range	2.1	.55	2.0
middle range	4.5	1.0	4.0
high range	50 max.	50 max.	50 max.
Ripple (mv)	50 max.	50 max.	50 max.
Time Constant (line)	0.08 sec.	0.08 sec.	0.08 sec.
(load)	0.15 sec.	0.15 sec.	0.15 sec.



Model MA65A

TUBELESS REGULATED DC SOURCES

Designed for industrial applications and unattended
installations, these regulated supplies
utilize magnetic amplifiers and provide the utmost
in long life and reliable maintenance-free
service.

ELECTRICAL CHARACTERISTICS

Model	MA65A	MA640	MA1220	MA2850
(VAC, 60 ~)	105-125, 1 ϕ	105-125, 1 ϕ	105-125, 1 ϕ	190-230, or 210-250, 3 ϕ , 4 wire, wye
Output (VDC)	5.4-6.6, adj.	4.5-7.7, adj.	11-15 or 12-16, adj.	23-32, adj.
Load Range	0-5 amp.	0-40 amp.	0-20 amp.	0-50 amp.
Reg. accuracy	$\pm 0.2\%$ for line or load	$\pm 1.0\%$ for any combination of line and load		
Ripple	1% max.	1% max.	1% max.	3% max.
Recovery Time	0.15 sec.	0.20 sec.	0.30 sec.	0.50 sec.



Model SR2

ELECTRICAL CHARACTERISTICS

Input 95-130 VAC, 1 ϕ , 50-60 cycles
for SR30 and SR100.
190-260 VAC, 1 ϕ , 50-60 cycles
for the SR2.
Reg. accuracy $\pm 0.25\%$ at any voltage setting
Ripple 1% RMS max.
Output: Model SR100 SR30 SR2
VDC 5-135 5-30 100-300
Amps 1-10 3-30 1-10

NOBATRON-RANGERS

(wide-range-variable regulated DC sources).

These versatile
and popular
instruments have
electrical
characteristics
similar to the
standard
Nobatrons,
except that
output voltage
is continuously
adjustable.

400-CYCLE INPUT NOBATRONS

These instruments are not normal production
items but are available on an extended
delivery schedule.

ELECTRICAL CHARACTERISTICS

Output voltage
and
load range Model DE-6-40 — 6 VDC at
4 to 40 amperes.
Model DE-12-10 — 12 VDC at
1 to 10 amperes.
Model DE-28-10 — 28 VDC at
1 to 10 amperes.
Input voltage 105-125 VAC, 1 ϕ , 360-440
cycles.
Reg. accuracy $\pm 0.25\%$.
Ripple 1% RMS maximum.
Recovery time 0.2 seconds.

FILTER SECTIONS FOR 50 & 60 CYCLE NOBATRONS

The ripple voltage of all Nobatrons is 1% of
the nominal output voltage setting, under
worst conditions. This is adequate for most
applications. If, however, less ripple is required,
Filter Sections are available for use with units
rated up to 50 amperes, which will reduce the
ripple to 0.1%.



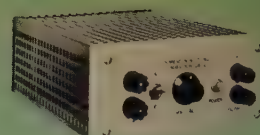
Model MA6501

PRECISION REGULATED TUBELESS DC SOURCE

A transistorized precision regulated DC source
utilizing magnetic amplifier principles. This
highly-stable, temperature-compensated unit is
Sorensen's new design for use with the Beck-
man Model DU Spectrophotometer.

ELECTRICAL CHARACTERISTICS

Input 105-125 VAC, 1 ϕ , 60 cycle.
Output #1 — 6 VDC adjustable inter-
nally $\pm 5\%$, 5 amperes load.
#2 — 6 VDC, 100 milliamperes
load.
#3 — 2 VDC, 30-60 milliamperes
Reg. accuracy $\pm 0.01\%$ against line
 $\pm 0.1\%$ against load
Ripple 30 mv RMS max. on #1 and #2
10 mv RMS max. on #3
Stability Typical stability after a 30
minute warm-up is .01% for
an eight hour period.



Model Q6-2

ALL-TRANSISTOR DC SUPPLY

Newest development in light, compact low
voltage power supplies. Completely transistor-
ized, the Q6-2 is a well-regulated DC supply
with excellent ripple and transient response
characteristics. Two units may be racked
side-by-side in standard 19" rack.

ELECTRICAL CHARACTERISTICS

Input 105-125 VAC, 50-60 cps
Output 6 VDC, adjustable $\pm 10\%$
0-2 amperes
Regulation $\pm 0.25\%$ for any combination
of line and load changes
Ripple 0.02% max.
Time constant 100 microseconds max.
* $\pm 20\%$ adjustment possible at half load.



Model 600B

B-NOBATRONS

(high-voltage, low-current, regulated DC supplies)

Designed to meet the broadest technical
and economical requirements. Conservatively rated
and requiring minimum service, these wide
range B-Supplies feature exceptional adapt-
ability and rugged construction. The internal im-
pedance figures given are from measurements
in accordance with IRE specifications for mea-
surement of power supply internal impedance

ELECTRICAL CHARACTERISTICS

Model	300 B	325 BB	560 BB	500 BB	500 B	1000 B
Output (VDC)	0-300	0-325	0-500	0-500	0-500	0-500
Output (Ma)	0-150	0-125	0-200	0-300	0-500	0-500
Regulation	$\pm 0.25\%$	$\pm 0.5\%$	$\pm 0.5\%$	$\pm 0.5\%$	$\pm 0.25\%$	$\pm 0.25\%$
Ripple (MV-RMS)	5 max.	5 max.	5 max.	3 max.	3 max.	3 max.
Bias supply (VDC at 0.5 Ma)	none	0-150	0-150	0-150	0-150	0-150
Int. impedance (max.)	2.0 ohms	2.0 ohms	2.0 ohms	2.0 ohms	2.0 ohms	2.0 ohms
AC input range (50-60 ~, 1 ϕ)	105-125	105-125	105-125	105-125	105-125	105-125
AC voltage ($\pm 2.5\%$, C.T., unreg.)	6.3 at 10 amp.	6.3 at 10 amp.	6.3 at 10 amp.	6.3 at 15 amp.	6.3 at 15 amp.	6.3 at 15 amp.
Max. bias circuit impedance	5 amp*	25000 ohms	25000 ohms	25000 ohms	25000 ohms	25000 ohms

*Two outputs, Series or Parallel



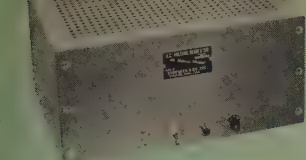
Model MR3215

MAGNETIC RANGERS

Rugged tubeless DC power supplies requiring
negligible maintenance, Magnetic Rangers pro-
vide wide range, continuously adjustable, well
regulated voltage at high current. One ver-
satile instrument can satisfy a wide variety
of your DC needs.

ELECTRICAL CHARACTERISTICS

Input 105-125 VAC, 1 ϕ , 50-60 cycle
Output voltage 5-36 VDC, continuously
adjustable
Output current MR3215: 0-15 amps
MR3230: 0-30 amps
Reg. accuracy $\pm 0.5\%$ against line
 $\pm 0.5\%$ against load
Ripple 1% RMS at 36 volts
Recovery time 0.2 sec.



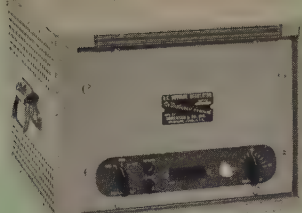
Model 1000S

REGULATORS (electronic):

Using the original Sorensen circuit and incorporating the Safety Diode, these regulators are noted for accuracy, economy of operation, easy maintenance. Models available with capacities from 150VA to 15KVA, single phase. Models available (Numbers denote VA capacities): 250S, 500S (-2S also), 1000S (-2S also), 2500S, 5000S (-2S also), 10000S (-2S also), 15000S (-2S also).

ELECTRICAL CHARACTERISTICS

Input	95-130 VAC, 1 ϕ , 50 or 60 cycles $\pm 10\%$. 190-260 VAC in "-2S" models.
Output	115 VAC adj. 110-120; 230 VAC with "-2S" models.
Reg. accuracy	$\pm 0.1\%$ against line, $\pm 0.1\%$ against load.
P.F. range	Unity to 0.7 lagging.
Distortion	Varies to 3% max. under worst conditions.
Load range	0 to full load.



Model 2501

PRECISION AC REGULATORS (electronic).

Giving ultra-precise, $\pm 0.01\%$ regulation, these instruments are rugged and serviceable, as proved by hundreds of applications in the field. Models available with capacities of 1000VA and 2500VA.

ELECTRICAL CHARACTERISTICS

Input	95-130 VAC, 1 ϕ , 50 and 60 cycles.
Output	115 VAC, 1 ϕ , adj. 110-120.
Reg. accuracy	$\pm 0.01\%$ against line, $\pm 0.01\%$ against load.
Distortion	3% maximum.
P.F. range	Unity to 0.7 lagging.
Load range	0 to full load.



Model APR 1010

TUBELESS MULTI-PURPOSE AC LINE REGULATOR

(Average, peak, or RMS regulation)

First regulator of its kind. Designed to regulate average, peak, or RMS value as selected. It also can be used as DC controller. Saves space, eliminates instrument duplication, means greater economy. Five principal sensing arrangements: Internal, external, remote, constant current, DC.

ELECTRICAL CHARACTERISTICS

Input	95-130 VAC, 1 ϕ (50 or 60 $\pm 10\%$)
Output	115 VAC, adj. 110-120 v. $\pm 0.1\%$ against line $\pm 0.1\%$ against load
Reg. accuracy (RMS, average, or peak, switch selected)	
Distortion	3% max.
Load	0-1000 VA
P.F. range	Unity to 0.7 lagging
Recovery time	0.1 sec.



Typical militarized power supply

Sorensen also manufactures a wide range of special equipment including computer power supplies and militarized units. For unusual climatic conditions, many standard and special designs are available with "Fosterited" or potted wound components.

MILITARIZED UNITS

Over the years, many versions of standard Sorensen products have been designed for military applications. While there is no all-encompassing military specification for voltage regulators, Sorensen can provide equipment with MIL-preferred components throughout, designed to meet MIL-T-27A for wound components and in accordance with MIL-E-4158A or MIL-E-16400A. Typically, the newest militarized units to be featured as standard catalog items are the 500MIL and the soon-to-be-released 1500MIL. These are rugged 500 and 1500 VA militarized regulators conforming as above, and offering 1% total regulation accuracy against line, load, and frequency changes, with an ambient temperature range of -40°C to $+55^{\circ}\text{C}$.

COMPUTER POWER SUPPLIES

In the design of standard and special equipment, Sorensen is outstanding in its application of alternate engineering approaches to the specific customer requirement. Rather than concentrate on any one particular design—electronic, tubeless magnetic amplifier, magnetic voltage regulator, etc.—Sorensen can draw

on all types without prejudice or limitation.

In the area of computer power supplies, for instance, broad experience has been gained in the design and production of regulated and semi-regulated supplies using each of these approaches, singly or in combination.

Let Sorensen apply its experience to your computer supply problems. We can provide a complete solution through our separate facilities, engineering, and production personnel specifically devoted to the design and volume production of computer power supplies.

AIRBORNE ELECTRONIC FREQUENCY CHANGERS AND INVERTERS

Sorensen has designed and built a wide variety of frequency changers and inverters for incorporation in military aircraft. For the most part, the changers convert variable (3200-1000~) input power to precision ($\pm 0.05\%$) output frequency. Most models are also voltage regulated ($\pm 1\%$) with minimum distortion (5-10%).

Airborne inverters are built to convert 28 VDC input to 400-cycle, 3-phase output, with output frequency accurate to 0.05% over wide ambients.

Sorensen's wide experience with commercial and military frequency changers may well supply the answer to your precision frequency problems. Our complete line of standard frequency changers is outlined on the next page.



Typical multi-voltage computer power supply



Model VRS-AC751

VOLTAGE REFERENCE SOURCE

Provides highly stable AC voltage for many laboratory and industrial uses such as direct operation of voltmeters and oscilloscopes, testing, amplifier gain checks. Compact, high power capacity, precisely regulated, fully calibrated.

ELECTRICAL CHARACTERISTICS

Input	105-125 VAC, 1 ϕ , 60 ± 0.5 cps
Output	0.1 to 799.9 VAC in 0.1-volt steps
Load	240 VA
Output voltage accuracy	$\pm 0.25\%$ (Much greater accuracy possible through correction curves)
Regulated distortion	1% maximum



Model MVR1000

MVR's (magnetic voltage regulators)

These low-cost magnetic voltage regulators are tubeless, give utmost reliability with good regulation. Very compact, they are ideally suited for incorporation as components. Available in capacities of 15, 30, 60, 120, 250, 500, 1000, and 2000 VA (designated MVR15, MVR30, etc.). Also available with 6.3 volt isolated output in 30, 60, and 160 VA capacity, (-6 models). For low-distortion requirements up to 120 VA, specify harmonic-filtered MVRH120 (less than 3% distortion). 12.6 volt MVR's and a more complete extension of 6.3 volt and harmonic-filtered lines will be available shortly.

Input	95-130 VAC, 1 ϕ , 60 cycles.
Output	115 VAC nominal (except 6.3 volt filament regulators)
Reg. accuracy	$\pm 0.5\%$ against line.
Load range	0 to full load.



Model D2500

400-CYCLE AC REGULATORS

Designed especially for airborne and ground testing installations for aircraft, missiles, and related 400-cycle applications. Military type components and construction; all wound components are Fosterited. Available in models D2505AN, D5005AN, D12005AN, D2500 (numbers 250, etc. denote VA capacities).

ELECTRICAL CHARACTERISTICS

Input	95-130 VAC, 1 ϕ , 400 cycles $\pm 10\%$.
Output	115 VAC, 1 ϕ , adj. 110-120 v.
Reg. accuracy	$\pm 0.25\%$ against line, $\pm 0.25\%$ against load
Distortion	5% maximum.
P.F. range	Unity to 0.7 lagging.
Load range	0 to full load.

FREQUENCY FLEXIBILITY

Sorensen electronic frequency changers convert 50 or 60 cycle line to well-regulated AC output at 60 cycles, 400 cycles, or a wide range of output frequencies. These convenient, portable sources have found general application in aviation, missile, automatic control and related fields.

1000VA FREQUENCY CHANGERS

Model FC 1000 (45-65 cps out.)
Model FCD 1000 (360-440 cps out.)

ELECTRICAL CHARACTERISTICS

Input	208 or 230 VAC $\pm 10\%$ 1 ϕ , 50 or 60 cycles
Output voltage	115 VAC, adj. 105-125V
Voltage regulation	$\pm 1\%$
Output frequency	(FCD 1000) 360-440 cps (FC 1000) 45-65 cps
Regulation accuracy	$\pm 1\%$ ($\pm 0.01\%$ with auxiliary frequency standard fixed at 50, 60 or 400 cps.)
Load range	0-1000 VA



Model FCD1000

WIDE RANGE FREQUENCY CHANGERS



Model FCR250

Latest, most versatile additions to the Sorensen line of regulated electronic frequency changers. Operating from 50 or 60 cycle line, these voltage- and frequency-regulated units permit simple dial selection of any frequency within a wide output range. Portable and practical, these instruments offer unique solutions to a wide variety of your laboratory, test, or production requirements.

	FCR100	FCR250
Input	105-125VAC, 1 phase, 45-65 cps	105-125VAC, 1 phase, 48-65 cps
Output voltage	115VAC, adj. 0-130V (specs below for 105-125V)	115VAC, adj. 105-125V
Output frequency	Range 1 45-300 cps Range 2 300-2000 cps	320-570 cps 560-1000 cps
Voltage Regulation	$\pm 1\%$ for line $\pm 1\%$ for load	$\pm 1\%$ for all variations
Frequency Regulation	$\pm 1\%$ (provision for ext. freq. standard of greater precision.)	$\pm 1\%$ ($\pm 0.01\%$ with aux. freq. standard fixed at 400 cycles.)
Load range	0-100 VA	0-250 VA (up to 500 watts with improved reg. at 400 and 800 cps)

CONTACT THESE LOCAL REPRESENTATIVES

Whatever your power control requirements—for industry, military applications or research—you will find a unit which meets your exact specifications in Sorensen's wide variety of instruments, coupled with the extensive line of high-voltage equipment produced by the Beta Electric Division. In addition to their many standard products, both

Sorensen and Beta have unusual experience in the engineering and production of special equipment to meet unique requirements. The authorized local representatives listed below are at your service; call the one nearest you for advice on Sorensen or Beta equipment.

CALIFORNIA—Palo Alto
McCarthy Associates
441 W. California Ave.
Phone Davenport 5-6136

CALIFORNIA—Pasadena
McCarthy Associates*
1055 E. Walnut
Phone Sycamore 2-8272

CALIFORNIA—San Diego 1
McCarthy Associates
934 West Laurel St.
Phone Belmont 9-4015

COLORADO—Denver 10
Lahana & Company
1886 South Broadway
Phone Pearl 3-3791 TWX DN676

CONNECTICUT—Bridgeport
Yewell Associates, Inc.
1101 East Main Street
Phone Forest 6-3456

D. C.—Washington 9
Horman Associates, Inc.*
2017 S. Street, N.W.
Phone Decatur 2-5705 TWX WA559U

FLORIDA—Fort Myers
Arthur H. Lynch & Assoc.
35 West North Shore Ave.
P. O. Box 466
Phone Edison 4-4431

GEORGIA—Atlanta 5
Bivins & Caldwell, Inc.*
3133 Maple Drive, N.E.
Phone Cedar 3-7522 TWX 987U

ILLINOIS—Chicago 45
Pivan Engineering Co.*
2820 Peterson Ave.
Phone Briargate 4-9135

MARYLAND—Baltimore
Horman Associates, Inc.*
635 St. Johns Road
Phone Hopkins 7-2290

MASSACHUSETTS—Burlington
Yewell Associates, Inc.*
Middlesex Turnpike
Phone Burlington 7-2561

MICHIGAN—Detroit 35
S. Sterling Company*
15310 W. McNichols Road
Phone Broadway 3-2900

MINNESOTA—Minneapolis 3
Pinkney & Hine
1925 Nicollet Ave.
Phone Federal 8-0523 TWX,
Minn. Code FMR

MISSOURI—Kansas City 30
Harris-Hanson Co.
7916 Paseo Avenue
Phone Hiland 6744 TWX KC448

MISSOURI—St. Louis 17
Harris-Hanson Co.
2814 So. Brentwood Blvd.
Phone Mission 7-4350 TWX WEB237

NEW JERSEY—Asbury Park
The I. E. Robinson Co. (branch)
905 Main St.
Phone Kellogg 1-3150

NEW JERSEY—Bagota
RMC Associates, Inc. (branch)
114 E. Main St.
Phone Diamond 3-5926

NEW YORK—Chicago 45
RMC Associates, Inc.*
236 E. 75th Street
Phone Trafalgar 9-2023 TWX NY 1-3805

NEW YORK—Rochester 18
J. D. Ryerson Associates, Inc.
105 Pickwick Drive
Phone Greenfield 3-3706

NEW YORK—Syracuse 2
J. D. Ryerson Associates, Inc.*
412 E. Genesee Street
Phone 76-8344 TWX SS-312

NORTH CAROLINA—Charlotte
James L. Highsmith Co.
P. O. Box 1011
Phone Franklin 5-6436

OHIO—Cleveland 21
S. Sterling Company (branch)
4311 Mayfield Road
Phone Evergreen 2-4114

OHIO—Dayton 2
S. Sterling Company (branch)
379 West 1st Street
Phone Fulton 8794

OREGON—Portland 16
James L. Kearns Company†
P. O. Box 5108
Phone Belmont 6-2444

PENNSYLVANIA—Camp Hill
The I. E. Robinson Co. (branch)
2120 Market Street
Phone Regent 7-6791

PENNSYLVANIA—Pittsburgh 36
H. E. Ransford Co.
5400 Clairton Blvd.
Phone Tuxedo 4-3425

PENNSYLVANIA—Upper Darby
The I. E. Robinson Company*
7404 West Chester Pike
Phone Flanders 2-7017 TWX Flanders 533

TEXAS—Dallas 9
Earl Lipscomb Associates*
P. O. Box 7084
Phone Fleetwood 8-1771 Teletype DL-411

TEXAS—Houston 5
Earl Lipscomb Associates (branch)
P. O. Box 6573
Phone Jackson 4-9303

WASHINGTON—Seattle
Hawthorne Electronics††
107 Administration Bldg.
Boeing Field
Phone Mohawk 3962

WASHINGTON—Seattle
James L. Kearns Company†
Phone Mutual 4566
Mail: Portland Office

HAWAII—Honolulu 17
Gene Piety
2030 Home Rule Street
Phone 83105

CANADA—Ajax, Ontario
Bayly Engineering, Limited*
1st Street
Phones: Toronto Empire 8-6866, Ajax 118

CANADA—Vancouver 2, B. C.
Arva
229 Rogers Bldg.
Phone Pacific 3367

MEXICO—Mexico City
Electro Labs. S.A.
Guanajuato #121
Phone 11-60-94

*Complete service facilities maintained for rapid local servicing of Sorensen and Beta equipment.

†Sorensen line only.

††Beta line only.

WRITE FOR LITERATURE

Send for complete information, including specifications, performance data and quotations. Product data sheets are issued on all new units as they become available. Inquiries regarding special applications and specifications are invited. Address Sales Engineering Department, Sorensen & Co., Inc., Richards Ave., South Norwalk, Conn., or (for high voltage applications) write Beta Electric Division, 333 East 103rd Street, New York 29, New York; or contact the local representative shown above. In Europe, please contact directly Sorensen-Ardag, Eichstrasse 29, Zurich 3, Switzerland.

West Coast Field Office: 1055 East Walnut St., Pasadena, Calif.





SERIES 200 PORTABLE HIGH VOLTAGE DC POWER SUPPLIES

0.5, 2 & 5 ma

FEATURES:

Lightweight and Portable
Air Insulation
Reversible Polarity
Safe and Reliable

APPLICATIONS:

OUTPUT VOLTAGE—0-30,000 volts DC, continuously variable.

OUTPUT CURRENT—2.0 ma at 30 KV, 3 ma below 30 KV (Model 230-2); 5 ma at 30 KV, 7 ma below 30 KV (Model 230-5).

OUTPUT VOLTAGE POLARITY—Reversible

—Approximately 1.0% per ma at 30 KV.

OUTPUT CAPACITANCE—0.005 mf in series with megohm, plus output lead capacitance (approx. 1 mmf).

INTERNAL RESISTANCE—Internal resistance 2.5 megohms.

TEST—KV meter 0-30 KV DC, $\pm 2.5\%$ initial accuracy. Ammeter 0-1 amp AC, $\pm 3\%$ initial accuracy (Model 230-2). Load current meter 0-10 DC (Model 230-5).

In addition to standard models in this Series, BETA offers elaborate versions for research, development and exacting work.



MODEL 301-A ELECTRONIC MICROAMMETER

FEATURES:

- Highly sensitive
- Rugged; impervious to overloads
- No moving parts
- Self-calibrating

SPECIFICATIONS:

POWER—95-125 volts, 50-60 cycle AC, 60 VA.

RANGES — 0.001/0.01/0.1/1.0/10/100 μ a, full scale.

ACCURACY—5% full scale on 0.001 range. 3% on all other ranges.

INPUT VOLTAGE SENSITIVITY—40 millivolts DC, full scale; constant for all ranges.

METER—4"-square bakelite case, 50 dial graduations, 1.0 μ a full scale.



SERIES 800 PORTABLE AC HIPOT TESTERS

0-2 KV to 0-20 KV, 1-5 ma

FEATURES:

- Automatically-limited maximum short circuit current
- High-speed overload cutoff relay
- Direct indication of insulation breakdown
- Direct reading kilovoltmeter across output

SPECIFICATIONS:

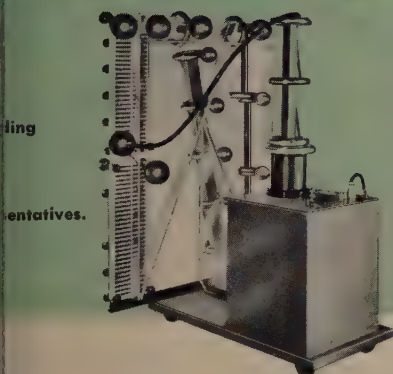
WAVEFORM DISTORTION — Less than 5% sine wave at no load.

METER—4" square bakelite-cased, $\pm 5\%$ full scale accuracy.

HV CONTROL—On-Off pushbutton.

OUTPUT VOLTAGE & CURRENT—0-2 KV, 1 ma; 0-5 KV, 2 ma; 0-10 KV, 3 ma; 0-15 KV, 4 ma; 0-20 KV, 5 ma.

BETA HIGH VOLTAGE EQUIPMENT



SERIES 4000 AIR-INSULATED, SELENIUM-RECTIFIED HIGH VOLTAGE POWER SUPPLIES

0.5, 2 ma

FEATURES:

Lightweight, easily maneuverable
Components unusually accessible for servicing
Low corona

Extremely long operational life

APPLICATIONS:

OUTPUT VOLTAGE — 105-125 volts, 50-60 cycles, single phase.

OUTPUT VOLTAMPERES—Approximately twice rated maximum output power.

OUTPUT VOLTAGE — Continuously variable from 0 to 250 KV.

OUTPUT CURRENT—2 ma can be drawn continuously at maximum voltage.

POLARITY—Reversible via manual positioning of rectifier ladders.

REGULATION—Unregulated, with internal impedance of 11 megohms; However, full-rated voltage and current are obtainable.

In addition to standard models in this Series, BETA offers elaborate versions for research, development and exacting work.



SERIES 6000 REGULATED HIGH VOLTAGE DC POWER SUPPLIES

FEATURES:

- Electrostatic generator
- Electronic voltage regulation and stabilization
- Unusually compact and lightweight
- Low-short-circuit current

SPECIFICATIONS:

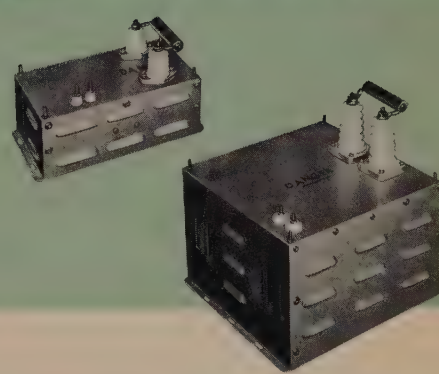
POWER INPUT—220 volts, 50-60 cycle, 3 phase.

OUTPUT VOLTAGE — 50-150 KV and 5-150 KV (cont. var.)

OUTPUT CURRENT—2.4 ma maximum.

REGULATION— $\pm 2\%$ (load) or $\pm 0.2\%$ (load)
 $\pm 4\%$ (line) or $\pm 0.1\%$ (line)

POLARITY—Negative (standard)



SERIES 9000 "HI-SEL" DC POWER PACKS

5-15 KV, 2.5 & 5 ma

FEATURES:

- Air-insulated
- Selenium rectifiers
- Low ripple in all current ratings
- Good dynamic load regulation

SPECIFICATIONS:

OUTPUT VOLTAGE (KV)	OUTPUT CURRENT (ma)	DIMENSIONS	WEIGHT (lbs.)	RIPPLE (rms)
0-5	5	7 3/4" h" x 4 1/4" w x 3" d	6	1.5
0-10	2.5	8" h x 6" w x 5" d	10 1/2	1.0
0-10	5	8" h x 6" w x 5" d	10 1/2	2.0
0-15	2.5	9" h x 8 1/2" w x 6" d	13	0.5
0-15	5	9" h x 8 1/2" w x 6" d	13	1.0

Models with ratings up to 30 KV available short



SERIES 1000 RACK-MOUNTED HIGH VOLTAGE DC POWER SUPPLIES

0-1 to 0-50 KV, 2-500 ma

FEATURES:

- Rugged construction
- Conservative design
- Fully self-protected
- Minimum operational hazards

SPECIFICATIONS:

REGULATION—Unregulated, but full rated current is available at maximum voltage. Regulation at maximum output voltage varies 15-50%.

RIPPLE—At maximum rated voltage and current in any voltage range, ripple is below 2.5% rms for the maximum current in that range.

SELENIUM RECTIFIERS—Employed in most designs with current ratings below 10 milliamperes.

POLARITY—Reversible standard, center-tapped on special order.

METERS—3½" output voltage and current meters, ±3% full-scale accuracy on all ranges.

VOLTAGE & CURRENT RANGE—0-1 KV, 500 ma; 0-3 KV, 200 ma; 0-5 KV, 10 ma; 0-5 KV, 50 ma; 0-5 KV, 100 ma; 0-10 KV, 2 ma; 0-10 KV, 10 ma; 0-10 KV, 50 ma; 0-15 KV, 2 ma; 0-15 KV, 5 ma; 0-15 KV, 10 ma; 0-30 KV, 2 ma; 0-30 KV, 5 ma; 0-30 KV, 10 ma; 0-50 KV, 2 ma; 0-50 KV, 5 ma.



SERIES 2000 AIR AND OIL INSULATED HIGH VOLTAGE DC POWER SUPPLIES

0-1 to 0-250 KV, 5-3000 ma

FEATURES:

- Two-unit construction for remote operation
- Maximum personnel and equipment protection
- Conservatively rated
- Simple to operate

SPECIFICATIONS:

POLARITY: Reversible by interchanging links in the high voltage section.

REGULATION: Unregulated. However, full-rated voltage and current are obtainable from all units.

OUTPUT VOLTAGE & CURRENT: 0-1000 V, 3000 ma; 0-3000 V, 1000 ma; 0-5000 V, 400 ma; 0-10KV, 200 ma; 0-20 KV, 150 ma; 0-30 KV, 30 ma; 0-50 KV, 10 ma; 0-50 KV, 50 ma; 0-100 KV, 5 ma; 0-120 KV, 5 ma; 0-150 KV, 5 ma; 0-250 KV, 10 ma; 0-250 KV, 5 ma (Cockcroft-Walton).

In addition to standard models in this Series, BETA offers more elaborate versions for research, development and similar exacting work.



SERIES 3000 DC OVERPOTENTIAL TESTERS

0-30 to 0-150 KV, 1-5 ma

FEATURES:

- Minimum size and weight
- Non-destructive, qualitative and quantitative dielectric testing
- "Burn" currents available for positive fault identification
- Effective personnel and equipment protection

SPECIFICATIONS FOR ALL MODELS

INPUT VOLTAGE — 105-125 volts, 50-60 cycles, single phase.

OUTPUT VOLTAGE — Continuously variable from zero to maximum rated voltage, adjustable to 0.03% of maximum rating. 30KV, 5ma; 50KV, 5ma; 80KV, 2ma; 120KV, 1ma; 80KV, 5ma; 120KV, 5ma; 150KV, 5ma.

OUTPUT CURRENT — Maximum rated current can be drawn continuously at maximum voltage.

POLARITY—Reversible.



SERIES PKV PEAK-READING KILOVOLTMETERS

0-20 to 0-50 KV

FEATURES:

- High accuracy and sensitivity
- High stability—dependable long-term readings
- Narrow pulsewidth measurement—as low as 1 µsec
- Optional despiking—eliminates wave overshoots

SPECIFICATIONS:

DUTY CYCLE RANGE—From DC (1.0) to as low as 0.00025.

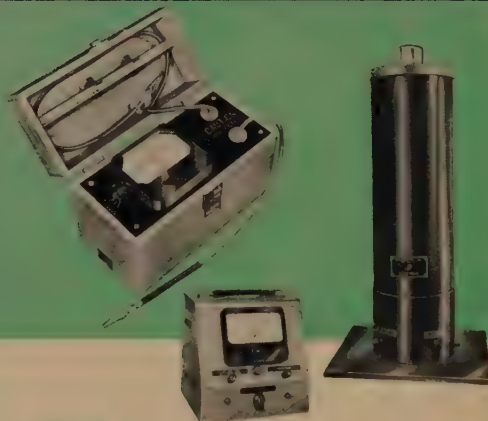
REPETITION RATE RESPONSE—Charging time constant of less than 1 µsec and discharge constant of approximately 1 second, for repetition rates between 5 cps and all radio frequencies.

ACCURACY — ±1% or ±3% (optional), with 100 µa DC full-scale sensitivity.

INPUT IMPEDANCE — Approximately 8 mmf with high voltage positive, 38 mmf with high voltage negative.

POLARITY — Reversible via internal lead interchange.

VOLTAGE RANGES—0-20 KV, 30 KV and 50 KV.



SERIES KV PORTABLE & SEMI-PORTABLE, SINGLE & DUAL RANGE KILOVOLTMETERS

0-15 to 0-200 KV

FEATURES:

- Linear scales
- Stabilized multipliers
- Ample overload factor
- Compact, Convenient, Rugged

LOW-DRAIN PORTABLE KILOVOLTMETERS

0-15 to 0-50 KV

VOLTAGE RANGES — 0-15, 0-30, 0-50, 0-15/30, 0-25/30 KV.

SENSITIVITY—25,000-50,000 ohms/volt.

ACCURACY—±1% or ±3% full-scale (optional).

LOW-DRAIN SEMI-PORTABLE KILOVOLTMETERS

0-100 to 0-200 KV

VOLTAGE RANGES—0-100, 0-150, 0-200 KV.

SENSITIVITY—10,000 and 20,000 ohms/volt.

ACCURACY—±3% full-scale, ±1% ⅓-scale.

BETA
first in
high
voltage

Beta Electric has, for more than 10 years, specialized in the research, design, development and production of DC and AC high voltage equipment. The unique experience gained through these years of custom manufacture of compact, reliable equipment for specialized applications has resulted in efficient standardization of design, with the retention of flexibility and versatility inherent in custom design.

WRITE Sales Engineering Dept. for individual product data sheets, or for consultation on special requirements.

BETA ELECTRIC

Division of Sorensen & Co., Inc.

333 EAST 103RD STREET

NEW YORK 22, NEW YORK

HAYDON
AT TORRINGTON

HEADQUARTERS FOR
TIMING

Precision Timing for SUPERIOR PRODUCT PERFORMANCE

HAYDON TIMING MOTORS : HAYDON TIMING DEVICES

Recently re-designed and re-engineered for even finer performance, this is the most complete timing motor line ever offered. New models include the Clutch Type (exclusive with Haydon) and the Heavy Duty Inductor Type. Featuring slow rotor speed, controlled lubrication and total enclosure, all Haydon Timing Motors offer you the advantages of unusual compactness and small size, long life, dependability and quiet operation.

Built around the proved-by-performance Haydon Timing Motors, these timing devices offer the same advantages of compactness, accuracy, dependability and long life. They are available in a complete line for every type of military, commercial and industrial application.

HYSTERESIS TYPE

... is a general purpose motor ideal for a very wide range of standard duty applications. Two torque ranges: 6 ounce inches with speeds from 1/60 to 60 rpm, and 10 ounce inches with speeds from 1 to 60 rpm. For 120 and 240 volts, 50 and 60 cps.

INDUCTOR TYPE

... is compact, fast-starting and has the extra power (30 ounce inches torque) needed for display and similar heavy-duty applications where other timing motor types are inadequate. Speeds from 1 to 60 rpm. For 120 or 240 volt operation, 50 and 60 cps.

CLUTCH TYPE

... exclusive with Haydon, is so designed that the rotor pinion, when de-energized, disengages from the gear train. This allows automatic resetting of the train without the use of external clutches. Speeds from 1/10 to 15 rpm. For 120 and 240 volts, 50 and 60 cps.

REVERSIBLE TYPE

... is a hysteresis motor with 2 coils. When energized, each produces opposite rotation of the output shaft. Speeds from 1/60 to 60 rpm. For 120 and 240 volt operation, 50 and 60 cps.

DIRECT-CURRENT TYPE

... utilizes permanent magnets with commutator and long-wearing brushes. Reversible by changing polarity. Speeds from 1/15 to 60 rpm. Windings available for 6 to 32 volts.

400 CPS TYPES

... offer an inherently accurate approach for instrumentation in military equipment. Two models: Miniature with 5 gram millimeters torque at rated voltage, and Heavy Duty with 18 gram millimeters. Speeds are 3000 rpm, 115 volts nominal.

TIME DELAY TIMERS

... provide time delay or interval timing in various ranges up to 4.5 minutes maximum for such applications as protecting power tubes or timing parts of a complete operating cycle. For 120 and 240 volts, 50 and 60 cps.

INTERVAL TIMERS

... incorporate heavy-duty, cam-operated switches and are used to directly control heavy loads in motor-operated food processing and laundry equipment, home appliances, battery chargers, etc. Intervals from 1 minute to 24 hours.

CYCLE TIMERS

... repeat a set cycle or sequence of operations as long as the motor circuit is energized. Use of Haydon "Torque-Rated" Motors in a wide choice of speeds makes possible a very broad range of timing intervals. Up to 8 enclosed SPDT switches can be specified.

ELAPSED TIME INDICATORS

... consisting of a synchronous motor and a non-resettable counter, register elapsed time in hours, hours and tenths, minutes, and minutes and tenths. Total register ranges up to 10,000 hours. For 120 and 240 volts, 50 and 60 cps.

APPLICATION ENGINEERING SERVICE

Haydon is the only manufacturer of timing motors and devices that offers you both a complete product line and a complete Field Engineering Service . . . through the Haydon Representative conveniently located in your area. A specialist in Time and Timing, this man can help you save time and costs by helping you get the RIGHT TIME for your needs the FIRST TIME!

WRITE FOR DETAILED INFORMATION.

HAYDON Manufacturing Company, Inc.

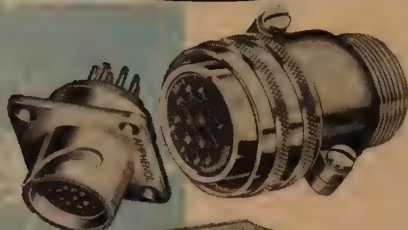
Subsidiary of GENERAL TIME Corporation

500 EAST ELM STREET, TORRINGTON, CONN., U. S. A.

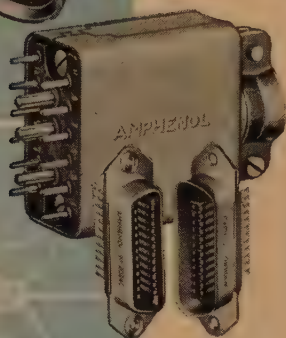
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assured reliability
BEGINS WITH

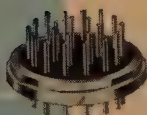
AMPHENOL Quality



AN and MINIATURE
AN-type CONNECTORS



STANDARD and MINIATURE
RACK & PANEL CONNECTORS



HERMETIC SEAL
COMPONENTS



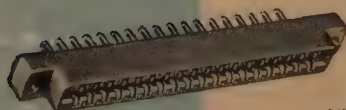
SOCKETS, PLUGS, AUDIO CONNECTORS



STANDARD & SUBMINAX COAXIAL CABLE



STANDARD & SUBMINAX
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PRINTED CIRCUIT CONNECTORS

and CUSTOM ENGINEERED COMPONENTS



AMPHENOL ELECTRONICS CORPORATION
chicago 50, illinois

AMPHENOL CANADA LIMITED toronto 9, ontario



BALLANTINE VOLTMETERS

Famous for **SENSITIVITY • ACCURACY • STABILITY**

AUDIO to 150 kc

MODEL 300

Voltage Range..... 1mv—100v
Frequency Range..... 10cps—150kc
Accuracy..... 2% ENTIRE RANGE
Input Impedance..... ½ meg shunted by 30μf



SUB-AUDIO to 150 kc MODEL 302C

Battery Operated

Voltage Range..... 100 μv—1000v
Frequency Range..... 2cps—150kc
Accuracy..... 3% 5cps—100kc
5% elsewhere
Input Impedance..... 2 meg shunted by 25 μf*

*Shunt capacitance, 10 μf on all ranges except two most sensitive ranges



PEAK-to-PEAK

MODEL 305

Voltage Range..... 1mv—1000v pk-to-pk
Frequency Range..... 10cps—100kc (sine wave)
Pulse width..... 3μsec—250μsec
Min Rep Rate..... 20 pulses per sec
Accuracy..... 5% for pulses
Input Impedance..... 2 meg shunted by 15 μf*

*Shunt capacitance, 8 μf on all ranges except two most sensitive ranges



AUDIO to 2 mc

MODEL 310A

Voltage Range..... 100 μv—100 v
Down to 40 μv at reduced accuracy
Frequency Range..... 10 cps—2 mc
As null detector 5 cps.—4 mc
Accuracy..... 3% 10 cps—1 mc
5% elsewhere
Input Impedance..... 2 meg shunted by 15 μf*

*Shunt capacitance, 8 μf on all ranges except two most sensitive ranges



AUDIO to 6 mc

MODEL 314

Voltage Range..... 1mv—1000v
(100μv—1mv without probe)
Frequency Range..... 15cps—6mc
Accuracy..... 3% 15cps—3mc
5% elsewhere
Input Impedance..... 11 meg shunted by 7.5 μf
(1 meg shunted by 25 μf without probe)



INFRASONIC to 30 kc MODEL 316

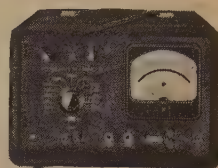
Voltage Range..... 20 mv—200 v pk-to-pk
Frequency Range..... 0.05 cps—30 kc
(Down to .01 cps with corrections)
Accuracy..... 3% ENTIRE RANGE
Input Impedance..... 10 meg shunted by 19 μf
or 40 μf depending on setting



ACCESSORIES are available for all voltmeters to extend voltage measurements down to 20 μv and up to 10 kv, and to measure currents from 0.1 μamp to 10 amp, and to provide DC from the Model 300 Voltmeter to drive external recorders or remotely located meters.

TRUE RMS INDICATION MODEL 320

Voltage Range..... 100 μv—320 v
Frequency Range..... 5 cps—500 kc
Accuracy..... 3% 15 cps—150 kc
5% elsewhere
Stability of Internal Calibrator..... 0.5%
Input Impedance...
10 megs shunted by 25 μf below 10 mv
10 megs shunted by 8 μf above 10 mv



DC & AC PRECISION CALIBRATOR MODEL 420

Voltage Range..... 0-10 v RMS; Pk-to-Pk; or DC
Frequency (Std. Model)..... 1 kc
(other values on special order)
Accuracy (long term)... Better than 0.5% above 1 mv
Distortion and Hum..... Less than 0.5%
Setting Resolution... Approaches 0.01% above 10 mv
Output Impedance (AC)..... 2-20 ohms depending on range setting



SENSITIVE INVERTER MODEL 700

For Measuring DC Voltages when combined with any AC Voltmeter

Voltage Range..... 1μv—100v DC
Ratio DC Input to RMS Output..... 1:100 & 10:1
Accuracy..... 1% 100μv—100v
Input Resistance..... >10 meg for 1:100
50 meg for 10:1



DECADE AMPLIFIER MODEL 220B

For Increasing the Sensitivity of any AC Voltmeter by 10 or 100 times

Voltage Range..... 10μv—50mv
Frequency Range..... 10cps—150kc
Accuracy..... 2% ENTIRE RANGE
Input Impedance..... 5 meg shunted by 15μf



DIRECT READING CAPACITANCE METER MODEL 520

Capacitance Range..... 0.01 μf to 12 μf
in 9 decade ranges covering over a billion to 1
Accuracy..... 2% above 0.1 μf
5% below 0.1 μf
Capacitor Power Factor..... 0.15
Test Frequency..... 1 kc



Each Ballantine Voltmeter has only one voltage scale, with decade range switching, which provides the same accuracy of reading at all points on the logarithmic voltage scale. A linear decibel scale is also provided for use by acoustical engineers. Each Voltmeter also may be used as a high gain wide band amplifier.

WRITE FOR MORE DETAILED INFORMATION TO—

BALLANTINE LABORATORIES, INC.

150 FANNY ROAD BOONTON, NEW JERSEY



PHENOLIC TUBING

SPECIFY... **CLEVELITE** *
BECAUSE

It has high insulation advantages, uniformity and inherent ability to hold close tolerances which give you dependability.

CLEVELITE dependability is the answer for product performance at its best.

Also, ensure over-all economy by adding Clevelite reliability to your product.

Write for folder showing the various grades in which Clevelite is produced. Your inquiry will receive prompt attention.

*Reg. U. S. Pat. Off.

THE CLEVELAND CONTAINER COMPANY

6201 BARBERTON AVE. CLEVELAND 2, OHIO

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Cleveland Container Canada, Ltd., Prescott and Toronto, Ont.

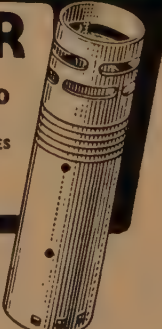
Representatives:

NEW YORK AREA: R. T. MURRAY, 604 CENTRAL AVE., EAST ORANGE, N. J.

NEW ENGLAND: R. S. PETTIGREW & CO., 62 LA SALLE RD., WEST HARTFORD, CONN.

CHICAGO AREA: PLASTIC TUBING SALES, 5215 N. RAVENSWOOD AVE., CHICAGO

WEST COAST: IRV. M. COCHRANE CO., 408 S. ALVARADO ST., LOS ANGELES



When ordering or seeking information please mention *Electronics Buyers' Guide*.

ELECTRONIC DESIGNERS GO FIRST TO THE "GUIDE"

Wherever designers and specifiers have immediate need for readily accessible, necessary product information at their breadboards, there, year after year, will you find the **ELECTRONICS BUYERS' GUIDE**. "Who makes what product or provides what service?" "Where can I buy it?" "Where can I find complete and accurate product specs?" These are questions that are asked daily by the men who design-in electronic products; these are questions that have been answered for the past seventeen years by the "Guide," the accepted reference book of the industry.

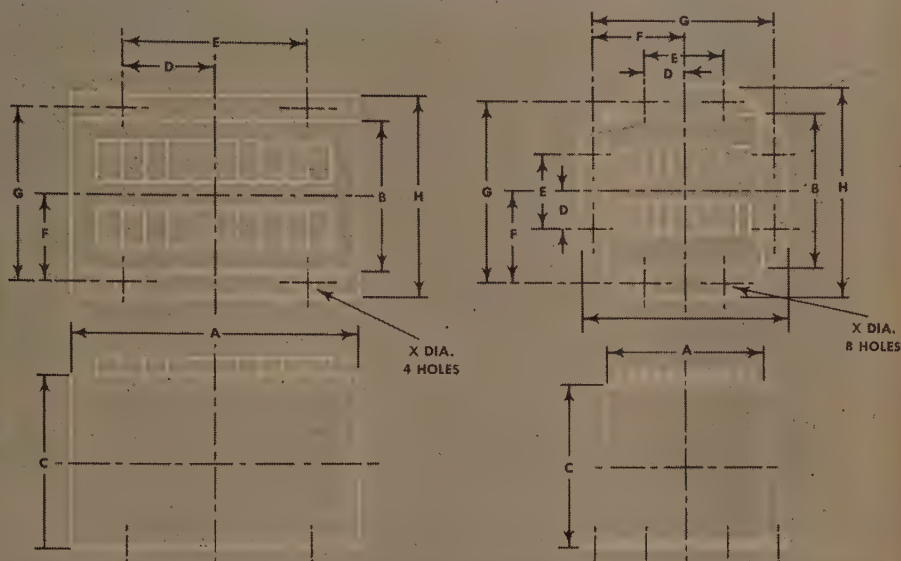
Year after year, the designers of the industry have preferred the "Guide" for its *Simplicity of Style* (as easy to use as a telephone directory), for its *Accuracy* (the industry helps the Research Staff revise its listings every year) and its *Complete Product Specs* (advertisers have told their complete product stories in the "Guide" consistently).

The key people of the industry—the buying influences—rely on the "Guide" for the answers to their product problems.

For Product Data . . .

the electronics BUYERS' GUIDE

Here's how to order reliable CONTROL Saturable Reactors



STANDARD LINE REACTOR ASSEMBLIES

240 VOLTS RMS

60 CPS SERIES

Type No.	PERFORMANCE USING SELENIUM RECTIFIERS							Area Available For Control Windings, In Circular Mils	Weight In Pounds	Can Style	OUTLINE DIMENSIONS (5)				MOUNTING DIMENSIONS (5)				
	Rated Current In Amps (1)	Rated Load In Ohms (2)	NOMINAL AVERAGE D.C. OUTPUT (3)			K For Response Time Equation	D.C. Control In Amp Turns (4)				A	B	C	H	D	E	F	G	X
			Volts	Amps	Volts-Amps														
3902	0.46	375	160	0.41	60	.022	2.25	300,000	8	2	5.50	4.00	4.00	5.25	1.00	2.00	2.31	4.62	0.312
3903	0.61	290	160	0.54	85	.023	2.25	300,000	11	2	5.50	4.50	5.00	5.50	1.87	3.75	2.50	5.00	0.312
3904	0.89	200	160	0.80	130	.025	2.63	300,000	13	1	5.50	5.50	5.50	6.75	1.50	3.00	3.06	6.12	0.312
3905	1.38	130	160	1.23	200	.035	2.75	375,000	15	1	5.50	5.50	5.50	6.75	1.50	3.00	3.06	6.12	0.312
3906	1.87	95	160	1.67	260	.035	3.00	375,000	21	1	6.00	6.00	6.50	7.25	2.00	4.00	3.31	6.62	0.312
3907	3.00	60	160	2.67	430	.044	3.00	400,000	31	1	6.50	6.50	6.50	7.75	2.00	4.00	3.56	7.12	0.312
3908	3.64	50	160	3.25	530	.053	3.00	400,000	35	1	7.25	7.25	6.50	8.50	2.00	4.00	3.94	7.87	0.312
3909	4.30	42	160	3.80	610	.060	3.50	500,000	41	1	7.50	7.50	7.50	8.75	2.00	4.00	4.06	8.12	0.312
3910	6.14	29	160	5.45	860	.065	4.25	500,000	51	1	8.25	8.25	7.00	9.50	2.00	4.00	4.44	8.87	0.312
3911	7.20	25	160	6.32	1000	.055	4.25	500,000	64	1	9.00	9.00	8.00	10.25	2.00	4.00	4.81	9.62	0.312
3912	12.6	13	160	11.1	1650	.065	4.25	500,000	85	1	9.50	9.50	9.00	10.75	3.00	6.00	5.06	10.12	0.312

STANDARD LINE REACTOR ASSEMBLIES

120 VOLTS RMS

60 CPS SERIES

4052	0.96	90	80	0.81	60	.030	2.25	300,000	8	2	5.50	4.00	4.00	5.25	1.00	2.00	2.31	4.62	0.312
4053	1.28	67	80	1.10	85	.023	2.25	300,000	11	2	5.50	4.50	5.00	5.50	1.87	3.75	2.50	5.00	0.312
4054	2.02	42	80	1.79	130	.030	2.63	300,000	13	1	5.50	5.50	5.50	6.75	1.50	3.00	3.06	6.12	0.312
4055	2.72	32	80	2.40	185	.032	2.75	375,000	15	1	5.50	5.50	5.50	6.75	1.50	3.00	3.06	6.12	0.312
4056	4.30	20	80	3.85	300	.042	3.00	375,000	21	1	6.00	6.00	5.50	7.25	2.00	4.00	3.31	6.62	0.312
4057	6.50	13.5	80	5.77	450	.064	3.00	400,000	31	1	6.50	6.50	6.50	7.75	2.00	4.00	3.56	7.12	0.312
4058	8.10	11.0	80	7.14	560	.060	3.00	400,000	35	1	7.25	7.25	6.50	8.50	2.00	4.00	3.94	7.87	0.312
4059	9.77	9.0	80	8.66	680	.073	3.50	400,000	41	1	7.50	7.50	7.50	8.75	2.00	4.00	4.06	8.12	0.312
4060	11.7	7.0	80	10.4	760	.046	4.25	400,000	51	1	8.25	8.25	7.00	9.50	2.00	4.00	4.44	8.87	0.312
4061	16.4	5.0	80	14.5	1050	.060	4.25	400,000	64	1	9.00	9.00	8.00	10.25	2.00	4.00	4.81	9.62	0.312
4062	25.0	3.2	80	21.9	1540	.050	4.25	400,000	85	1	9.50	9.50	9.00	10.75	3.00	6.00	5.06	10.12	0.312

1. Average DC output at 110% of nominal AC supply voltage.

2. Resistance for 40° C. $\pm$ 2° C. rise above 35° C. ambient at 110% of nominal AC supply voltage.

3. Taken at 120 volts AC supply for Types 4052 to 4062 and at 240 volts AC supply for Types 3902 and 3912.

4. Total control required to change the output voltage from 5 to 95 per cent of maximum.

5. All dimensions are in inches.

RELIABILITY BEGINS WITH CONTROL

CONTROL, a division of Magnetics, Inc., manufactures a complete line of 240-volt and 120-volt standard high permeability magnetic devices which give designers greater flexibility in selection of equipment for their particular application.

HOW TO ORDER: To order standard reactor assemblies, the following information must be specified:

1. Reactor type number.
2. Voltage (number of turns on each control winding).
3. Current (wire size of each control winding).

To determine number of turns and wire size of each control winding:

1. Choose the size of reactor which will meet requirements.
2. From the table, select the ampere-turns of control needed to control the reactor from full-on to full-off. If additional forcing is required, please write CONTROL for reactor curves.
3. Divide the ampere-turns needed by the maximum control current needed to control the reactor. This is the number of turns needed to control the reactor.

4. Multiply maximum control current by 1,000 to determine circular-mil area of bare copper wire needed.

5. Select a wire size whose circular-mil area is equal to or greater than the calculated value.

NOTE: A maximum of eight control windings can be supplied, provided the total circular-mil area of the wire of the control windings does not exceed maximum mil area available as shown in the table.

For full details, write for Catalog R-10

CONTROL
A DIVISION OF MAGNETICS, INC.

Dept. X-38

BUTLER, PA.

When ordering or seeking information please mention Electronics Buyers' Guide.

HERE'S HOW TO SPECIFY

Performance-Guaranteed TAPE WOUND CORES

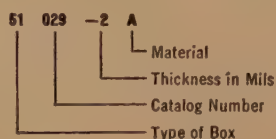
Magnetics, Inc. manufactures "Performance-Guaranteed" Tape Wound Cores using such commercially available alloy materials as Hy Mu 80, 48 Alloy and Orthonol. These alloys, when properly processed, fill the majority of applications in which tape wound cores are used today.

Each "Performance-Guaranteed" Tape Wound Core is coded by a part number which describes it in great detail. Knowing this code will greatly simplify your purchasing and assembly line practices.

1. 50,000 series are Standard Cores in Phenolic Boxes
51,000 series are Standard Cores in Aluminum Boxes
2. Number preceding final letter is tape thickness in mils
3. Final letter describes the high permeability material as follows: A—Orthonol D—Hy Mu 80 H-48 Alloy

Example: A typical core number is 51029-2A

1. 51,000 indicates a standard core in an Aluminum Core Box.
2. The number preceding final letter is 2, indicating tape thickness is 2 mils.
3. Final letter is A, showing Orthonol is the material.



For complete information, write for Catalog-Design Manual TWC-200

TABLE I • STANDARD SIZES OF TAPE WOUND CORES

A ₂ Aw X 10 ⁻⁶ (See Note 1)	CORE NUMBER (See Note 2)	CORE DIMENSIONS (In.)			NOMINAL CASE DIMENSIONS (In.)			CASE WIN- DOW AREA IN CIRCUL- AR MILLS X 10 ⁻⁶	MEAN LENGTH OF MAGNETIC PATH (Cm.)	EFFECTIVE CORE CROSS SECTION AREA (Cm. ²)			I.D./O.D. RATIO
		I.D.	O.D.	Ht.	I.D.	O.D.	Ht. (See Note 3)			.001	.002	.004 & .006	
0.004	50153	0.375	0.500	0.125	0.315	0.560	0.195	0.099	3.49	0.041	0.043	0.046	0.750
*0.008	50056	0.500	0.625	0.125	0.440	0.685	0.195	0.194	4.47	0.040	0.043	0.045	0.800
0.013	50057	0.625	0.750	0.125	0.555	0.810	0.195	0.308	5.49	0.040	0.042	0.046	0.833
*0.017	50000	0.500	0.750	0.125	0.440	0.810	0.195	0.194	4.92	0.081	0.086	0.091	0.667
*0.030	50002	0.650	0.900	0.125	0.590	0.960	0.195	0.348	6.13	0.081	0.086	0.091	0.722
0.053	50033	0.625	0.875	0.250	0.555	0.945	0.330	0.308	5.99	0.162	0.172	0.182	0.714
0.059	50009	0.750	0.938	0.250	0.680	1.010	0.330	0.460	6.74	0.121	0.128	0.135	0.800
*0.059	50076	0.625	1.000	0.188	0.555	1.070	0.268	0.308	6.38	0.182	0.193	0.205	0.625
*0.074	50011	1.000	1.250	0.125	0.930	1.320	0.195	0.864	8.94	0.081	0.086	0.091	0.800
*0.079	50007	0.625	1.000	0.250	0.555	1.070	0.330	0.308	6.36	0.242	0.257	0.272	0.625
*0.079	50061	0.750	1.000	0.250	0.680	1.070	0.330	0.462	6.93	0.161	0.171	0.181	0.750
*0.089	50106	0.750	1.125	0.188	0.680	1.195	0.260	0.462	7.38	0.182	0.193	0.205	0.667
*0.118	50168	0.750	1.000	0.375	0.680	1.070	0.455	0.462	6.97	0.227	0.257	0.272	0.750
0.119	50094	0.625	1.000	0.375	0.555	1.070	0.445	0.308	6.49	0.339	0.385	0.411	0.625
*0.148	50004	1.000	1.250	0.250	0.930	1.320	0.330	0.864	8.94	0.161	0.171	0.181	0.800
0.179	50034	0.750	1.125	0.375	0.680	1.195	0.455	0.460	7.49	0.342	0.389	0.405	0.667
0.186	50115	1.125	1.375	0.250	1.045	1.445	0.330	1.090	9.99	0.161	0.171	0.181	0.818
*0.222	50029	1.000	1.375	0.250	0.930	1.445	0.330	0.864	9.39	0.242	0.257	0.272	0.727
0.237	50188	0.750	1.250	0.375	0.680	1.320	0.455	0.462	7.98	0.453	0.514	0.544	0.600
0.250	50181	0.875	1.250	0.375	0.805	1.320	0.440	0.648	8.48	0.340	0.386	0.408	0.700
*0.296	50032	1.000	1.500	0.250	0.930	1.570	0.330	0.864	9.84	0.323	0.343	0.363	0.667
*0.444	50026	1.000	1.500	0.375	0.930	1.570	0.445	0.864	9.84	0.484	0.514	0.544	0.667
*0.469	50030	1.250	1.750	0.250	1.170	1.820	0.330	1.368	11.85	0.323	0.343	0.363	0.714
*0.592	50038	1.000	1.500	0.500	0.930	1.570	0.590	0.864	9.84	0.605	0.685	0.726	0.667
*0.597	50018	1.625	2.000	0.250	1.525	2.100	0.330	2.324	14.41	0.242	0.257	0.272	0.813
*0.937	50035	1.250	1.750	0.500	1.170	1.820	0.590	1.368	11.85	0.605	0.685	0.726	0.714
*1.055	50425	1.250	2.000	0.375	1.170	2.100	0.465	1.368	12.60	0.726	0.771	0.817	0.625
*2.471	50017	2.000	2.500	0.500	1.900	2.600	0.590	3.608	17.87	0.605	0.685	0.726	0.800
2.685	50040	1.500	2.000	1.000	1.400	2.100	1.110	1.960	13.99	1.211	1.370	1.457	0.750
*2.686	50001	1.500	2.500	0.500	1.400	2.600	0.590	1.959	15.79	1.210	1.371	1.452	0.600
*3.944	50031	2.500	3.000	0.500	2.400	3.100	0.590	5.757	21.73	0.605	0.685	0.726	0.833
*4.947	50103	2.000	3.000	0.500	1.900	3.100	0.590	3.608	19.67	1.210	1.371	1.452	0.667
*7.320	50128	2.500	3.500	0.500	2.312	3.688	0.713	5.343	23.71	1.210	1.371	1.452	0.714
*9.893	50022	2.000	3.000	1.000	1.900	3.100	1.110	3.608	19.67	2.419	2.742	2.903	0.667
*14.661	50042	2.500	3.500	1.000	2.313	3.688	1.188	5.343	23.71	2.419	2.742	2.903	0.714
*22.907	50080	2.500	3.750	1.250	2.313	3.938	1.437	5.347	24.59	3.780	4.284	4.536	0.667
*27.489	50100	2.500	3.750	1.500	2.313	3.938	1.688	5.347	24.59	4.536	5.141	5.444	0.667
*48.176	50081	3.250	4.500	1.500	3.062	4.688	1.688	9.371	30.64	4.536	5.141	5.444	0.722
*67.452	50427	3.250	5.000	1.500	3.062	5.188	1.688	9.371	32.40	6.351	7.198	7.621	0.650
*99.617	50112	4.000	5.250	2.000	3.782	5.469	2.280	14.063	36.66	6.048	6.855	7.258	0.762
*159.386	50426	4.000	6.000	2.000	3.782	6.280	2.276	14.532	39.34	9.677	10.968	11.613	0.667

*A.I.E.E. Proposed Standard Size.

Note 1—Product of window area and iron area calculated for 2 mil material.

Note 2—Part numbers listed are for phenolic cases. Specify 51000 series for aluminum cases (last three numbers remain the same).

Note 3—Dimensions listed are nominal sizes for phenolic cases. For aluminum cases, add .015 to .020 inches to heights shown.

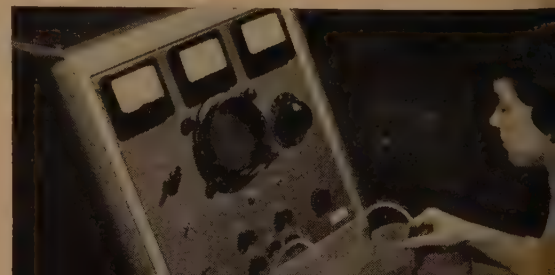
TABLE II • NAMES OF SIMILAR MATERIALS

D—Hy Mu 80	H-48 Alloy	A—Orthonol
4-79 Permalloy MO—Permalloy Mu Metal*	Carpenter 49 Allegheny 4750 Hipernik	Orthonik Deltamax Hipernik V

*This material has a different composition than the others in the same column. The characteristics of this material are such that in general it is not recommended for use in tape wound cores.

MATCHED CORES

Magnetics, Inc. will match cores within 5% over the entire voltage-current loop. Matching prior to winding results in improved yield and economical



MAGNETICS INC. PRODUCTS

Performance-Guaranteed BOBBIN CORES

TABLE III • STANDARD CERAMIC AND STAINLESS BOBBIN CORES

PART NO.	NOMINAL DIMENSIONS IN INCHES						
	A	B	C	D	E	F	G
CERAMIC BOBBIN							
80002-B	.125	.140	.185	.090	.030	.200	.030
80003-B	.188	.140	.248	.148	.030	.200	.030
80023-A	.250	.140	.310	.210	.030	.200	.030
80004-B	.313	.140	.373	.270	.030	.200	.030
80018-A	.313	.140	.435	.270	.030	.200	.061
80009-B	.375	.140	.435	.330	.030	.200	.030
80017-A	.563	.140	.685	.513	.030	.200	.061
STAINLESS STEEL BOBBIN							
80163	.110	.050	.140	.100	.005	.060	.015
80164	.110	.140	.140	.100	.005	.150	.015
80165	.125	.075	.185	.105	.010	.095	.030
80166	.125	.140	.155	.110	.005	.150	.015
80167	.188	.140	.248	.168	.010	.160	.030
60168	.313	.140	.373	.293	.010	.160	.030

For Additional Information, Write for Bulletin BC-102

Bobbin cores are now being made in combinations of the following dimensions. Other sizes can be supplied on request.

*BOBBIN DIAMETERS: $\frac{1}{8}$ ", $\frac{3}{16}$ ", $\frac{1}{4}$ ", $\frac{5}{16}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ ", 1 ", $1\frac{1}{4}$ ", $1\frac{1}{2}$ ".

†TAPE WIDTH: $\frac{1}{16}$ ", $\frac{1}{8}$ ", $\frac{1}{4}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", 1 ", $1\frac{1}{2}$ ".

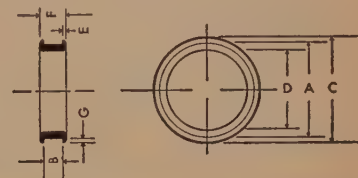
TAPE THICKNESS: 0.000125", 0.000250", 0.0005", 0.001".

BUILD-UP: 1 wrap to several hundred.

MATERIALS: 4-79 Mo Permalloy, Orthofoil.

* $1\frac{1}{2}$ -in. diam. bobbin is not standard, but can be furnished upon request.

†Not with standard bobbins if tape width is over $\frac{1}{4}$ -in., but can be furnished upon request.



Performance-Guaranteed POWDER CORES

TABLE IV • MOLYBDENUM PERMALLOY POWDER CORES

Core Number	μ	Inductance (mh) 1000 Turn Coil			Dimensions (inches) before finish										Radii
					O.D.			I.D.			Height				
		Min.	Nom.	Max.	Min.	Nom.	Max.	Min.	Nom.	Max.	Min.	Nom.	Max.		
55206-A2	125	58	68	83	.790	.800	.810	.495	.500	.505	.240	.250	.260	.032	
55848-A2	60	28	32	39	.790	.800	.810	.495	.500	.505	.240	.250	.260	.032	
55511-A2	26	12	14	17	.790	.800	.810	.495	.500	.505	.240	.250	.260	.032	
55057-A2	14	6.6	7.8	9.2	.790	.800	.800	.495	.500	.505	.240	.250	.260	.032	
55310-A2	125	77	90	104	.890	.900	.910	.547	.550	.553	.290	.300	.310	.062	
55930-A2	125	136	157	179	1.050	1.060	1.070	.575	.580	.585	.428	.440	.452	.075	
55894-A2	60	65	75	86	1.050	1.060	1.070	.575	.580	.585	.428	.440	.452	.075	
55395-A5	60	65	75	86	1.050	1.060	1.070	.575	.580	.585	.428	.440	.452	.075	
55066-A2	26	28	32	37	1.050	1.060	1.070	.575	.580	.585	.428	.440	.452	.075	
55068-A2	14	15	18	20	1.050	1.060	1.070	.575	.580	.585	.428	.440	.452	.075	
55548-A2	125	106	127	148	1.288	1.300	1.312	.780	.785	.795	.400	.420	.437	.062	
55585-A2	125	71	79	91	1.335	1.350	1.365	.908	.920	.925	.333	.350	.367	.062	
55324-A2	125	101	117	137	1.395	1.410	1.425	.868	.880	.885	.400	.412	.424	.062	
55254-A2	125	146	168	195	1.558	1.570	1.582	.938	.950	.955	.555	.570	.585	.100	
55438-A2	125	248	281	325	1.825	1.840	1.855	.938	.950	.955	.690	.710	.730	.100	

For Complete Details, Write for Bulletin PC-103

Performance-Guaranteed MAGNETIC LAMINATIONS

TABLE V • STANDARD MAGNETIC CORE LAMINATION SHAPES

LAMINATION TYPE	STACK HEIGHT (inches)	WINDOW AREA (sq. in.) W	CROSS-SECTION AREA (sq. in.) A	W x A	LAMINATION TYPE	STACK HEIGHT (inches)	WINDOW AREA (sq. in.) W	CROSS-SECTION AREA (sq. in.) A	W x A
DU 1	$\frac{1}{4}$	.5625	.063	.035	EI 375	$\frac{3}{8}$	.234	.141	.033
DU 37	$\frac{3}{8}$	1.125	.141	.159	EI 625	$\frac{1}{2}$	.293	.391	.115
DU 50	$\frac{1}{2}$	2.000	.250	.500	F 12	.344	.188	.118	.022
EE 24-25	$\frac{1}{4}$	.125	.063	.008	F 12		.188	.118	.022
EE 26-27	$\frac{3}{8}$	.172	.141	.024	(Modified)	.344	.190	.118	.022
EE 28-29	$\frac{1}{2}$	.039	.014	.0005	F 13	.344	.190	.141	.052
EE 186-187	$\frac{3}{16}$	.125	.063	.008	F 20	$\frac{3}{8}$	.371	.25	.064
EI 11	$\frac{3}{8}$	.574	.766	.440	F 21	$\frac{1}{2}$	.257	.25	.064
EI 12	1	.750	1.000	.750	Ring	Variable	Various	Various	Variable
EI 21	$\frac{1}{2}$	.254	.250	.064	U-BE	$\frac{1}{4}$	.313	.063	.020
EI 75	$\frac{3}{8}$	.422	.563	.237	UI 312	$\frac{3}{16}$	.293	.098	.028
EI 187	$\frac{3}{16}$	.082	.035	.003	UI 375	$\frac{3}{8}$	.422	.141	.059

Performance-Guaranteed laminations are made from any commercially available soft magnetic material. Heat treatment for specific properties may be specified but should be checked by Magnetics, Inc. Engineering Department if the Performance-Guarantee is to apply. When asking for quotations, describe, if possible:

1. Shape required
2. Grade of magnetic steel
3. Gauge of lamination
4. Surface insulation

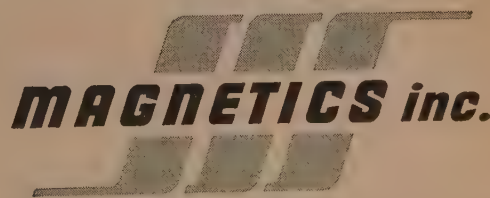
For Complete Details, Write for Catalog ML-201.

Performance-Guaranteed MAGNETIC SHIELDS

TABLE VI • MAGNETIC SHIELDS

Tube To Be Used With	Tube Mfr.	Magnetics, Inc. Part No.	Tube To Be Used With	Tube Mfr.	Magnetics, Inc. Part No.	Tube To Be Used With	Tube Mfr.	Magnetics, Inc. Part No.
RS-1, 2, 3		40012	5 AMP-1	Dumont	40036	7 MP	Dumont	40120
RS-4, 5, 6		40013	5 BP-1	RCA	40086	7 JP-1, 4	RCA	40005
RS-7, 8, 9		40014	5 BPA	Dumont	40086	7 VP-1	RCA	40005
2 BP-1, 11		40024	5 CP-1A	RCA	40087	10 SP-4	RCA	40031
3 ACP	Dumont	40023	5 CPA	Dumont	40087	10 WP-7	Dumont	40031
3 BP-1A	RCA	40023	5 FP-4, 7	RCA	40149	5819	RCA	40050
3 JP-1, 7	RCA	40023	5 AHP & 5FP	Dumont	40149	K 1197	Dumont	40021
3 GPA	Dumont	40007	3 JPA	Dumont	40044	6363	Dumont	40022
3 KP-1, 4, 11	RCA	40148	5 LPA	Dumont	40151	K-1198	Dumont	40022
3 MPI	RCA	40001	5 RP	Dumont	40119	6364	Dumont	40067
3 RPA	Dumont	40001	5 UP-1, 7, 11	RCA	40000	K-1211	Dumont	40015
3 RP-1	RCA	40001	5 WP-11, 15	RCA	40150	6199	Dumont	40020
3 WPI	Dumont	40074	5 XP	Dumont	40153	6292	Dumont	40055
5 ABP-1, 7, 11	RCA	40019	5 YP	Dumont	40152	6467	Dumont	40066
5 ADP	Dumont	40019	7 ABP	Dumont	40120	931-A	RCA	
		40019	7 MP-7, 14	RCA	40120			

DEPT. X-37



BUTLER, PENNSYLVANIA

MICROWAVE PROGRESS

At this time, in place of our usually scheduled scientific discussions, we'd like to introduce our specially skilled field representatives to you. These men are highly qualified engineers, capable and willing to sit down with you to discuss any microwave equipment problems you may have. They'll see to it that your problems are answered promptly and completely.

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336 East Fourth Street
Loveland, Colorado
Normandy 7-1376

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Twinbrook 3-1400

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Granite 1-7870

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Buffalo, New York
Atwater 5095

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PRD West Coast Sales Office

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We've expanded our production runs to fill the increasing demand for our catalog products. Delivery on these items can now be made within 30 days (at the outside) from receipt of order.

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P.S. We will always maintain the same high standards of product quality that started this increasing demand in the first place.

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PRD MICROWAVE TEST EQUIPMENT READY FOR IMMEDIATE DELIVERY!



PRODUCT	PRD TYPE #	FREQUENCY RANGE (kmc/sec)
Waveguide Termination	116-A	8.2 to 12.4
Fixed Coaxial Attenuator	130 Series	2.0 to 10
Fixed Coaxial Attenuator	1100 Series	DC to 4.0
Coaxial Termination	145-A	0 to 4.0
Precision Dial-Gauge Attenuator	185-B	7.0 to 10.0
Precision Dial-Gauge Attenuator	192-A	26.5 to 40.0
Precision Dial-Gauge Attenuator	195-B	8.2 to 12.4
Shielded Uncalibrated Variable Attenuator	154-A	8.2 to 12.4
Precision Dial Attenuator	196-C	8.2 to 12.4
Precision Dial Attenuator	196-D	8.5 to 9.6
Variable Cutoff Attenuator	180-A	8.2 to 10
Precision Coaxial Slotted Section	200-C	1.0 to 4.0
Precision Coaxial Slotted Section	205-A	4.0 to 10.0
Precision Waveguide Slotted Section	201-A	3.95 to 5.85
Precision Waveguide Slotted Section	203-E	8.20 to 12.4
Precision Waveguide Slotted Section	212-A	26.5 to 40.0
Rotary Standing Wave Detector	219	100 to 1,000 mc/s
Broadband Probe	250-A	1.00 to 12.4
Standing Wave Amplifier	277	350 to 2500 cycles
Waveguide Slide Screw Tuners	303-A	8.2 to 12.4
Double Stub Tuner	306-A	2.0 to 10.0
E-H Tuner	313-A	18.0 to 26.5
Waveguide-to-Coaxial Adapter	354-B	8.2 to 12.4
Waveguide-to-Coaxial Adapter	356-A	5.4 to 8.2
Directional Coupler	401	7.05 to 10.0
Directional Coupler	402	8.5 to 9.6
E-Plane Bend	462	8.2 to 12.4
H-Plane Bend	463	8.2 to 12.4
Frequency Standard Multiplier	500	3.25 to 10,000 mc/s
Heterodyne Frequency Meter	504	100 to 10,000 mc/s
Precision Direct Reading Frequency Meter	559 Series	8.20 to 10.0
Precision Direct Reading Frequency Meter	570 Series	26.5 to 32.0
Calibrated Precision Frequency Meter	560-S1	2.7 to 3.7
Calibrated Precision Frequency Meter	583-D	2.4 to 3.7
Direct Reading Frequency Meter	585 Series	8.2 to 10.0
Tunable Crystal and Bolometer Mount	621-A	18.0 to 26.5
Bolometer	610-A	0 to 12.4
Coaxial Tunable Crystal and Bolometer Mount	612-A	1 to 10
Broadband Coaxial Bolometer Mount	627-A	0.5 to 10
Broadband Coaxial Bolometer Mount	628-A	0.5 to 10
Broadband Bolometer	631 Series	0.5 to 10
Waveguide Thermistor Mount	643-A	8.2 to 12.4
Waveguide Thermistor Mount	646	5.4 to 8.2
Universal Power Bridge	650-B	— —
Shielded Tube Mount	702	8.50 to 9.66
Universal Klystron Power Supply	801-A	— —
Klystron Power Supply	809	— —
VHF-UHF Noise Generator	904	30 to 1000 mc/s

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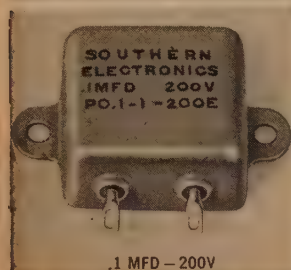


where precision counts — it's **S.E.C. first!**

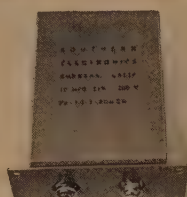
PLASTIC PRECISION CAPACITORS



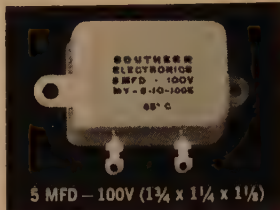
Tubular .1 MFD — 200V



.1 MFD — 200V



10 MFD ± 1% 200V
(4 7/16 x 3 1/16 x 2 1/8)



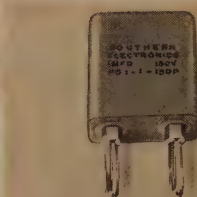
5 MFD — 100V (1 3/4 x 1 1/4 x 1 1/8)



1 MFD — 200V



Adjustable
(1 1/2 x 1 1/4 x 1 1/8)



Plug in (1 MFD — 150V)

I. POLYSTYRENE

with these outstanding properties:

- Tolerances as close as 0.1%
- Insulation Resistance as HIGH as 1×10^{12}
- Dielectric Absorption as LOW as .0001
- Dissipation Factor as LOW as .0002
- Temperature Coefficient... 100PPM per °C
- Stability as close as .05% drift in 1 yr.
- Voltage Derating... none to 170°F.
- Hermetically sealed for enduring accuracy!

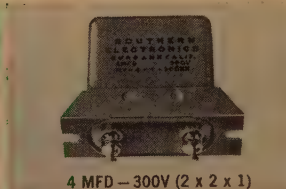
also available:

- Many other case styles or mounting brackets
- Any capacitance from .001 to 50 MFD (incl. special values)
- Voltages from 50 to 5000

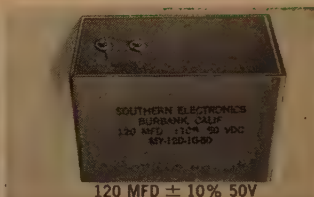
2. POLYESTER

with these outstanding properties:

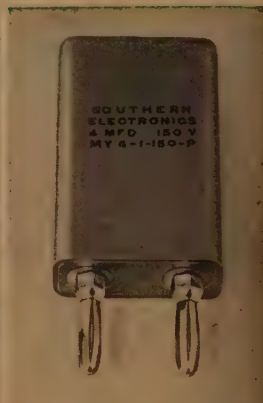
- Tolerances as close as 1%
- Insulation Resistance as HIGH as 1×10^{11}
- Dielectric Absorption as LOW as .001
- Dissipation Factor as LOW as .003
- Temperature Coefficient... 800 PPM per °C
- Temperature range... to 150°C.
- Hermetically sealed for enduring accuracy!



4 MFD — 300V (2 x 2 x 1)



120 MFD ± 10% 50V



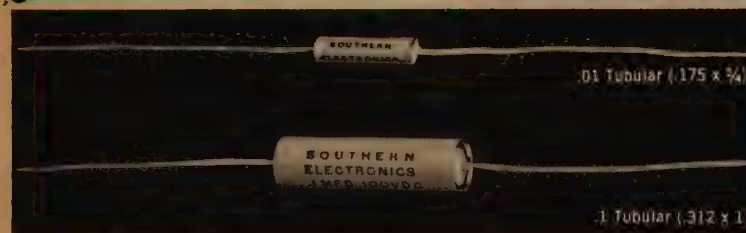
Plug in (4 MFD — 150V)



2 MFD — 100V (1 1/8 x 1 1/8 x 7/8)



1 MFD — 400V (1 3/4 x 1 1/4 x 1)

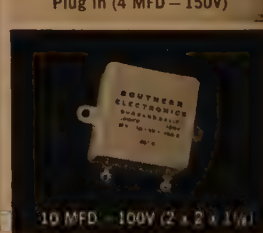


.01 Tubular (.175 x 3/4)

1 Tubular (.312 x 1)



Printed Circuit (Small) .11 MFD — 50V



10 MFD — 100V (2 x 2 x 1 1/8)

3. RC NETWORKS

- Close tolerances
- Hi-grade precision resistors
- Potted units
- Meet mil specs

Many other types of precision RC Networks available!

S.E.C. PRODUCTS HAVE BEEN SPECIFIED IN SEVERAL MISSILE APPLICATIONS!

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PIONEERS IN CUSTOM PRECISION CAPACITOR ENGINEERING



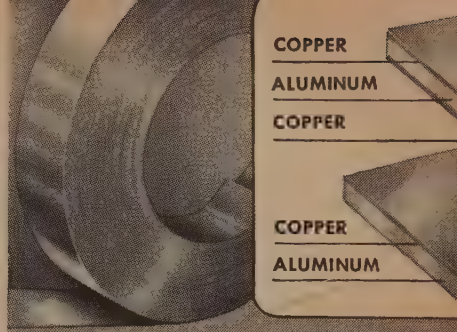
TRUFLEX THERMOSTAT METALS

TRUFLEX thermostat metals are manufactured in a wide variety of types, each with a different reaction to temperature. Uniformity of metal insures accurate and consistent performance. Precision parts fabricated to exact specifications.



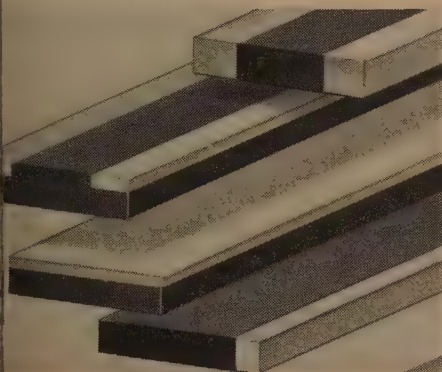
CLAD METALS

Available in practically any combination of precious to precious, precious to base or base to base metals. Combinations for electronics include aluminum-clad iron, nickel-clad iron for anode materials.



ALCUPLATE

Copper-clad aluminum for component cases or cans, chassis, cooling fins, etc., light weight, excellent conductivity. Copper surface is ideal for soft soldering and electroplating.



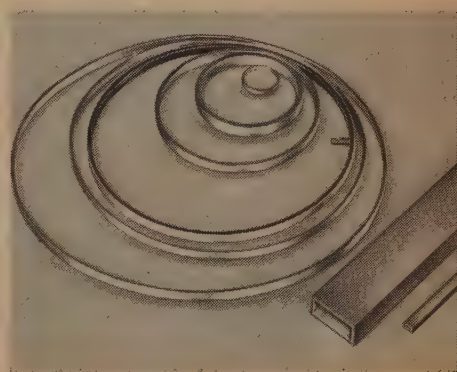
CLAD CONTACT MATERIAL

Precious metals and alloys bonded to base metals available in following types — overlay, single and double edgelay, single and double inlay, Top-lay, ready for you to fabricate into contacts.



CLAD CONTACTS

General Plate can supply all types of fabricated clad contacts, buttons, rivets, contact assemblies made to customer's specifications. These contacts give electrical conductivity and long life at reduced costs.



WAVE GUIDE and COLLECTOR RINGS

RECTANGULAR WAVE GUIDES. Solid silver, silver lined brass or aluminum. Sizes to government specifications. COLLECTOR RINGS. Solid silver or precious metal on base metal. All sizes.

General Plate Products

that solve your Electronic Design Problems

General Plate Clad Metals, made by metallurgically bonding one metal to another, are available in sheet, strip, tubing or wire in various widths, thicknesses and diameters.

Silver, gold and platinum-group metals bonded on base metals give solid precious metal performance at a fraction of the cost of solid precious metal. The precious metal provides specific performance requirements such as electrical conductivity and corrosion resistance while the base metal provides workability, strength, and solderability.

Clad base metals provide a new group of engineering metals with properties not available in solid metals. Their use frequently results in lower material costs as compared to solid metals.

In many electronic applications further economy results when General Plate supplies fabricated parts ready for assembly into your product. General Plate makes an infinite variety of fabricated parts, such as electrical contacts, collector rings and TRUFLEX thermostat metal parts to customer's exact specifications.

General Plate Engineers will gladly help you with your problems.

You can profit by using General Plate Clad Metals

METALS & CONTROLS



CORPORATION

General Plate Division

31 Forest Street, Attleboro, Mass.

- **Alnifer®**, **Nifer®** — Aluminum and Nickel-clad steel for anode plates.
- **Alcuplate®** — Copper-clad aluminum for component cases, chassis, cooling fins, condenser blades, etc.
- **Alsiplate®** — Silver-clad aluminum for lightweight condensers, etc.
- **Clad Contacts and Contact Materials** — Increased strength and longer life at reduced cost.
- **Collector Rings** — Fabricated from solid precious metals or precious-clad base metals. Sizes ranging from fraction of an inch to few feet in diameter.
- **Truflex® Thermostat Metal** — Sheet strip, formed elements and assemblies produced to specification.
- **Thin Gauge Metals** — Beryllium copper, nickel, pure beryllium, Haynes Stellite alloys, etc.
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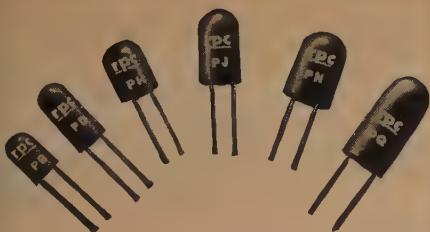
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To meet the requirements for printed circuitry, RPC has developed Type P Encapsulated Wire Wound Precision Resistors. Miniature, single ended units designed for easy rapid mounting on printed circuit panels with no support other than the wire leads. Many newly developed techniques are employed in the manufacture of Type P Resistors. These units can be operated in ambient temperatures up to 125°C. and will withstand all applicable tests of MIL-R-93A, Amdt. 3. Available in 6 sizes, rated from 1/10 watt to .4 watt. 1/4" diameter by 3/16" long to 3/8" diameter by 3/4" long. Resistance values to 3 megohms. Tolerances from 1% to 0.05%.

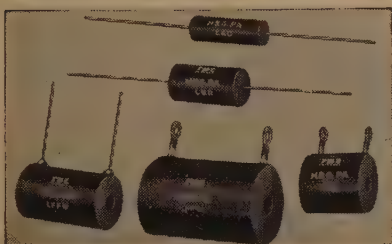


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RPC is a widely recognized supplier of high quality resistors to industry, Government Agencies and the Armed Forces. Advanced production methods, modern equipment and scientific skill enables RPC to manufacture resistors of highest quality in large quantities at reasonable cost. Modern manufacturing plant is completely air conditioned and equipped with electronic dust precipitators to insure highest production accuracy. RPC resistors are specified for use in instruments, electronic computers, radiation equipment, aircraft equipment and scientific instruments.

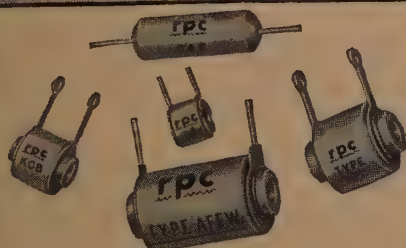
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Encapsulated Precision Wire Wound Resistors

RPC Type L Encapsulated Resistors will withstand temperature and humidity cycling, salt water immersion and extremes of altitude, humidity, corrosion and shock without electrical or mechanical deterioration. Type L resistors are available in many sizes and styles ranging from sub-miniature to standard with lug terminals, axial or radial wire leads. Available for operation at 105° C. or 125° C. ambient temperatures. These resistors will meet all applicable requirements of MIL-R-93A, Amdt. 3. Type L can be furnished with all resistance alloys and resistance tolerances from 1% to .02%.



Unsealed

Precision Wire Wound Resistors

Unsealed precision resistors are wound on steatite forms and are used for all general requirements. They can be furnished with all resistance alloys in tolerances from 1% to .02%. These resistors will meet the requirements of MIL-R-93A, Amdt. 2, characteristic B. Special winding techniques, impregnation and thermal aging result in resistors of exceptional stability. They are available in a wide variety of sizes, styles and terminal types. Matched resistors, networks and special assemblies can be supplied.



High Frequency Resistors

Used where requirements call for very low inductance, capacitance and skin effect in circuits involving pulses and steep wave fronts. Depending on size and resistance value, these resistors are usable at frequencies to over 400 mc. Resistance values range from 20 ohms to 100 megohms with tolerance of 20% to 5%. 2 types available.

TYPE G resistors (shown) are tubular, in 6 sizes from 4 1/2" long x 3/4" diameter to 18 1/2" long x 2" diameter. With band terminals or ferrules. Power rating 10 to 100 watts.

TYPE F resistors (not shown) in 8 sizes from 9/16" long x 0.10" diameter to 6 1/2" long x 9/16" diameter. Lugs or wire leads. Power rating 1/4 to 10 watts.



High Voltage Resistors

Type B Resistors are stable compact units for use up to 40 KV. These resistors are used for VT voltmeter multipliers, high resistance voltage dividers, bleeders, high resistance standards and in radiation equipment. They can be furnished in resistance to 100,000 megohms. Available as tapped resistors and matched pairs. Sizes range from a 1 watt resistor 1 inch long x 3/8 inch diameter rated at 3500 volts, to a 10 watt resistor 6 1/2 inches long x 3/4 inch diameter rated at 40 KV. Low temperature and voltage coefficients. Standard resistance tolerance 15%. Tolerances of 10%, 5% and 3% available. Tolerance of 2% available in matched pairs.



High Megohm Resistors

Type H Resistors are used in electrometer circuits, radiation equipment and as high resistance standards. Resistance available to 100 million megohms, (10¹⁴ ohms). For utmost stability under adverse conditions Type HSD and HSK Hermetically Sealed are recommended. Eight sizes from 3/8 inch to 3 inches long are available. Voltage rating to 15,000 volts. Low temperature and voltage coefficients. Standard resistance tolerance 10%. Tolerance of 5% and 3% available. Also matched pairs 2% tolerance.

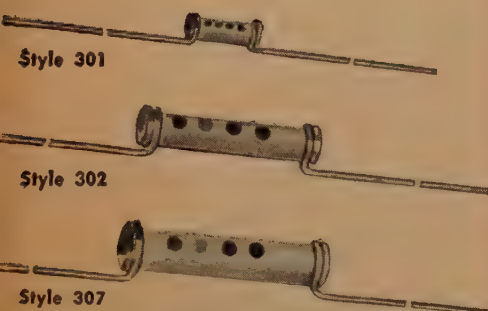
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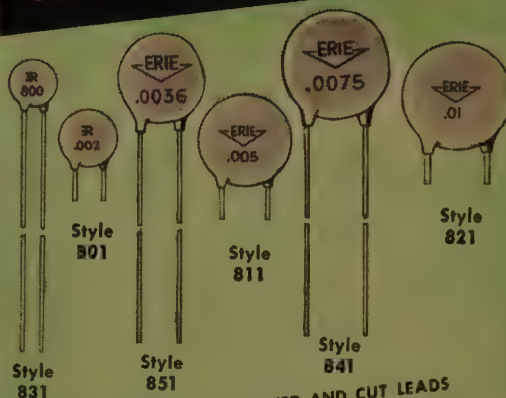


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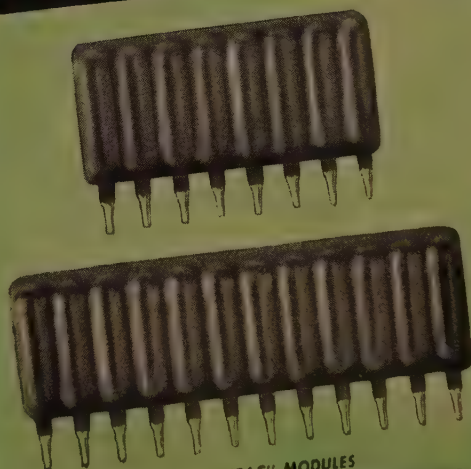
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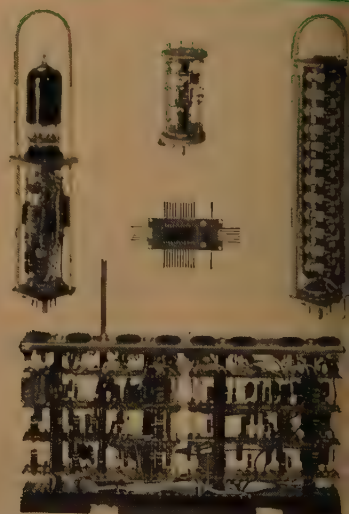
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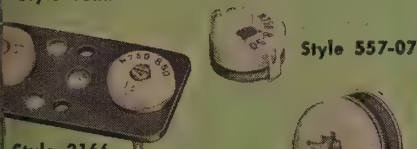
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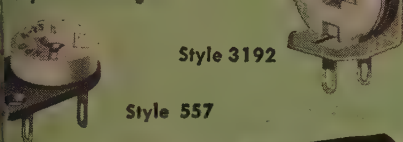
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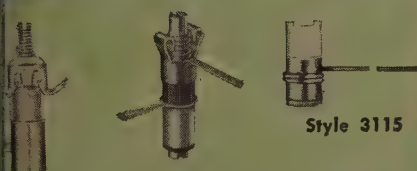
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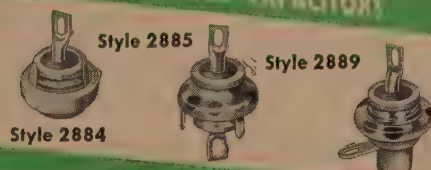
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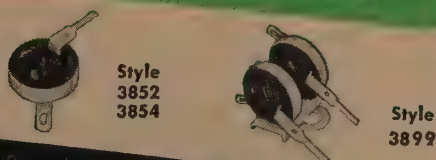
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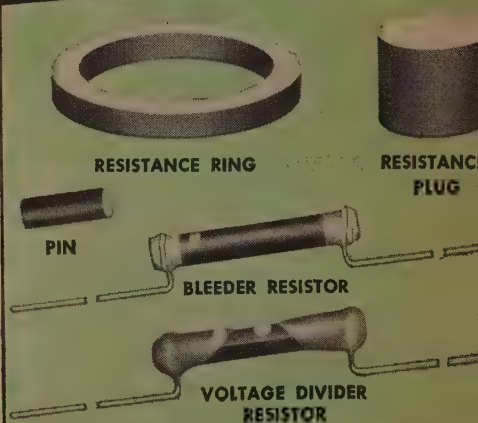
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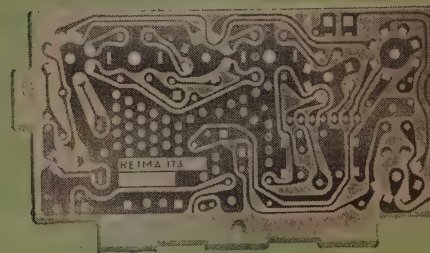
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PRODUCTS



S-14-C



S-4-C

S-5-C



S-14-B



S-15-A



S-14-C COMPUTER POKETSCOPE is a portable oscilloscope, especially designed for computers and business machine service. Lightweight and small size together with simplicity of operation makes this instrument IDEAL for field servicing. In addition . . . signal amplifier with $0.35 \mu s$ pulse rise from dc, with signals of 1 mv observable . . . calibrated fixed sweeps and continuously adjustable linear time base from $20 \mu s$ to 2 seconds . . . $5 \times$ stable time base expansion with complete parading for accurate pulse position . . . sync limiting . . . special intensification circuits permits observation of pulses shorter than $10 \mu s$ at repetition rates slower than 1 pps . . . accessory attenuating and amplifying probes . . . make this instrument a MUST for computer type service.

S-4-C SAR PULSESOCOPES are improved JANized equivalents to the Gov't Model AN/USM-25. These portable instruments (only 31.5 lbs. each) are for precision pulse time measurements in radar, TV and all electronics equipment. Portray all attributes of the pulse . . . internal crystal controlled markers of 10 and $50 \mu s$ available for self-calibration . . . in R operation a small segment of the A sweep is expandable for detailed observation with a direct-reading calibrated dial accurate to 0.1%. Video amplifier band-pass up to 11 mc . . . optional video delay $0.55 \mu s$. . . pulse rise time better than $0.05 \mu s$. . . R pedestal (sweep) 2.4 to $24 \mu s$. . . video sensitivity of 0.1 v rms/in. Easily convertible from μs to yards. Operates from 50 to 400 cycles at 115 volts.

S-5-C LAB PULSESOCOPES are JANized equivalents to the Gov't Model AN/USM-24C. These portable, AC, wide band-pass laboratory oscilloscopes are ideal for pulse as well as general purpose measurements. Internal delay of $0.55 \mu s$ permits observation of pulse leading edge. Includes precision amplitude calibration, $10 \times$ sweep expansion, internal trace intensity time markers, internal trigger generators and many other features. Video amplifier .06 v RMS/inch . . . pulse rise time of 0.07 us or response to 11 mc . . . 5 to 50,000 us/in. triggered or repetitive sweep . . . internally generated markers from 0.2 to 500 us . . . trigger generator from 50 to 5000 pps. for internal and external triggering. Operates from 50 to 400 cycles at 115 volts AC.

S-11-A INDUSTRIAL POKETSCOPE is a small, compact, and lightweight instrument for observing electrical circuit phenomena. The flexibility of the POKETSCOPE permits its use for ac measurements as well as for dc. The vertical and horizontal amplifiers are capable of reproducing within—2 db from dc to 200 kc with a sensitivity of 0.1 v rms/in . . . repetitive time base from 3 cycles to 50 kc continuously variable throughout its range . . . variations of input impedance, line voltage or controls do not "bounce" the signal—the scope stabilizes immediately.

S-14-A HI-GAIN POKETSCOPE provides the optimum in oscilloscope flexibility for analysis of low-level electrical impulses. Vertical and horizontal channels: 10 mv rms/inch with response within—2 db from dc to 200 kc and pulse rise of $1.8 \mu s$. . . non-frequency discriminating attenuators and gain controls with internal calibration of trace amplitude . . . repetitive or trigger time base with linearization from $\frac{1}{2}$ cycle to 50 kc with $\pm$ sync or trigger.

S-14-B WIDE BAND POKETSCOPE is ideal for investigations of transient signals, dc signals, aperiodic pulses or recurrent waveforms. Vertical channel: 50 mv rms/in. within—2 db from dc to 700 kc . . . pulse rise time of $0.35 \mu s$. Horizontal channel: 0.15 v rms/in. within—2 db from dc to 200 kc . . . pulse rise of $1.8 \mu s$. Attenuators and gain controls are non-frequency discriminating . . . trace amplitude calibration . . . repetitive or triggered time base from $\frac{1}{2}$ cycle to 50 kc . . . $\pm$ sync or trigger . . . trace expansion, filter graph screen and many other features.

S-15-A POKETSCOPE is a portable, twin tube, high sensitivity oscilloscope with two independent vertical as well as horizontal channels. It is indispensable for investigation of electronic circuits in industry, school and laboratory. Vertical channels 10 mv rms/in. with response within—2 db from dc to 200 kc and pulse rise time of $1.8 \mu s$. . . horizontal channels 1 v rms/in. within—2 db from dc to 150 kc . . . non-frequency discriminating controls . . . internal signal amplitude calibration . . . linear time base from $\frac{1}{2}$ cycle to 50 kc, triggered or repetitive, for both horizontal channels.

S-12-B RAKSCOPE admirably fills the need for a small oscilloscope of wide versatility. With all the features of the S-11-A POKETSCOPE, the RAKSCOPE is JANized (Gov't Model No. OS-11), and has many additional advantages; the sweep, from 5 cycles to 50 kc, is either repetitive or triggered . . . vertical and horizontal amplifiers are 50 mv rms/inch with band-pass from 0 to 200 kc . . . special phasing circuitry for frequency comparison.

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SYSTEMS CONCEPT



RAKSCOPE S-12-C

The Waterman SYSTEMS RAKSCOPE, S-12-C series is a rack mounted oscilloscope with SYSTEMS CONCEPT. Systems concept is a basic means for rapid monitoring of desired signals with minimum operative effort and without the use of auxiliary switching or jack panels. S-12-C series provide the following:

1. **BASIC UNIT**—The basic S-12-C SYSTEMS RAKSCOPE is a complete combination systems monitoring and trouble-shooting oscilloscope with outstanding physical and electrical characteristics. The RAKSCOPE occupies but 7 inches of a standard 19" rack and extends only 10 inches behind the front panel. Identical vertical and horizontal amplifiers are DC type having rise times better than 0.35 usec, and 50 or 71 millivolts rms per inch of deflection respectively. Signal calibration method uses a direct reading accurate meter. Time base sweeps are from 1/2 cps to 50KC in trigger or repetitive operation. Sync from internal or external sources provide stable operation by means of new sync lockout circuits. Special plug-in elliptical sweep circuit for easy phase and frequency checks greatly increase its systems utility. Construction is ruggedized throughout. Tube type options include standard commercial, ruggedized commercial or ruggedized military. Operable from 50 to 400 cycles.

2. **CUSTOM MODIFICATION**—Desired flexibility is obtained with the optional signal input selector. For the first time it is possible to select up to eleven different signal sources with the necessary built-in attenuation (supplied by us or by you) for each source. Thus the entire switching panel can be omitted from an overall system resulting in circuit and space economics. Standard elliptical sweep is 60 cycles, but plug-in units for other frequencies can be supplied. Accessories such as attenuating, direct, and amplifying probes are available.

Improve your existing or contemplated systems by including the S-12-C SYSTEMS RAKSCOPE as an integral part. Your local Waterman representative is ready to assist you in determining specific requirements.



PANELSCOPE[®]

The Waterman PANELSCOPE is a custom-built cathode ray tube oscilloscope, with simplified operation, and yet available at a low price. The PANELSCOPE concept provides for the following:

(1) **MINIATURIZATION**—Panel space required is only 5 1/4" x 5-3/16"—depth is 10" and the weight is less than 7 lbs. The PANELSCOPE can be installed in practically any equipment—mobile or stationary—air, sea, or land—military or commercial.

(2) **SIMPLICITY OF OPERATION**—Twist of a single rotary switch provides a synchronized pattern of desired incoming signal (up to 11 circuits) against proper linear time base. This is ideal for monitoring and trouble shooting, as it removes the need of fiddling with knobs as is done now on general purpose oscilloscopes. The static controls, such as beam, focus, positioning, and graticule brightness are located in tube escutcheon.

(3) **CUSTOM DESIGN**—A wide variety of—signal amplifiers with response from dc to megacycles and sensitivities from 5 millivolts—synchronized or triggered linear time base generators from 1/2 cycle (and lower if need be) to 2 microseconds—can be specified by you to fit your needs for particular equipment.

(4) **PARTIAL KIT FORM**—the PANELSCOPE comes fully wired and tested with chosen signal amplifier, linear time base generator and attendant sync. amplifier. The desired signal attenuators, frequency and amplitude determining components, and method of synchronization can be installed either by us or by you.

(5) **POWER REQUIREMENT**—Less than 10 watts of line power for built-in high voltage supply—The required B+ and heater current as selected by your requirements. For those cases where B+ and heater power is not available, auxiliary power pack can be supplied.

There is a place in your equipment for Waterman PANELSCOPE, a custom built oscilloscope at production prices, although your needs may be but one or two. Ask for specification sheets either from our representatives or direct from the factory.

RAYONIC CATHODE RAY TUBES BY WATERMAN

TUBE	PHYSICAL DATA		STATIC VOLTAGE		DEFLECTION*		LIGHT OUTPUT**
	FACE	LENGTH	A3	A2	VERT	HOR	
3JP1	3"	10"	3000	1500	111	150	40
3MP1	3"	8"		750	99	104	4
3RP1	3"	9.12"		1000	61	86	5
3SP1	1.5x3"	9.12"		1000	61	86	5
3XP1	1.5x3"	8.875"		2000	33	80	22

*Deflection in volts per inch.

**Light output of a line in millifoot lamberts per millimeter at line width not to exceed .65mm.

The basic properties of the cathode ray tube that concern the designer or the user are: deflection sensitivity, unit line brightness, line width, static voltage requirements and physical size. A comparison between cathode ray tubes manufactured by Waterman Products Company is shown in the table adjoining. These tubes are available in P1, P2, P7 and P11 phosphors. 3JP1 3JP2, 3JP7, 3RP1, 3SP1 and 3XP1 are available as JAN tubes.

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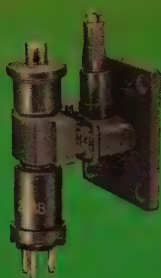
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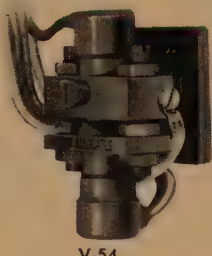
When you specify Varian, you can be sure of the finest in microwave tubes . . . optimum performance, extreme reliability and ruggedness . . . excellent frequency stability, ample power . . . designed and built by the recognized leader in klystron development.



VA-87



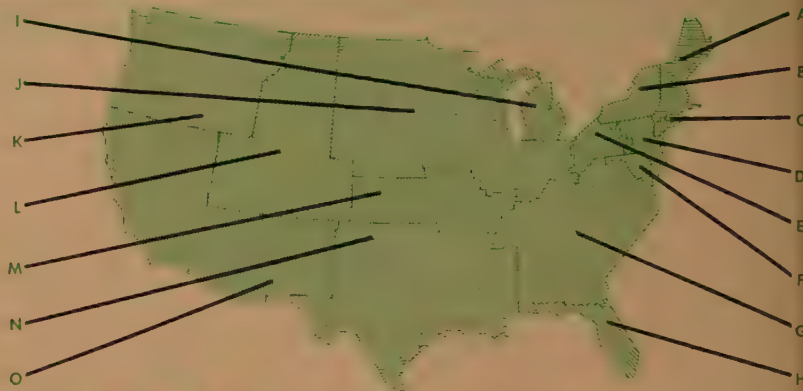
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V-54



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TUBE	TYPE	TUNER	BASING	FREQUENCY RANGE kMc	TYPICAL POWER OUTPUT MILLIWATTS	MAXIMUM RATINGS	
						RESONATOR VOLTAGE	RESONATOR CURRENT
X-12	Reflex	Micro.	3-Pin	12.4—17.5	100	600 V	65 mA
X-13	Reflex	Micro.	3-Pin	8.2—12.4	300	500	65
X-13B	Reflex	Micro.	3-Pin	7.5—11.0	300	500	65
V-23	2-Res. Osc.	Lock Nut	Molded Leads	9.1—11.0	5 watts	1350	125
V-24B	4-Res. Pulse Amp.	55 db gain 0.75% DU		9.35—9.40	40 kW pk	36 kV pk	10 A pk
X-26B	Reflex	Single Screw	Octal	6.3—7.5	1.3 watts	750	80 mA
X-26D	Reflex	Single Screw	Octal	5.8—7.125	1.4 watts	750	80
X-26E	Reflex	Single Screw	Octal	5.3—6.6	1.3 watts	750	80
X-26F	Reflex	Single Screw	Octal	5.3—6.0	1.4 watts	750	80
V-27	2-Res. Amp.	Lock Nut	Molded Leads	9.1—11.0	6 W @ 8 db	1350	125
V-27B	2-Res. Amp.	Lock Nut	Molded Leads	8.5—10.0	6 W @ 8 db	1350	125
VA-28	2-Res. Osc.	Lock Nut	Molded Leads	13.35—13.65	10 watts	3300	74
V-39B	Reflex	External Cavity	Molded Leads	10—15.5	50	750	42
V-39C	Reflex	External Cavity	3-Pin	10—15.5	60	750	42
V-40B	Reflex	External Cavity	Molded Leads	15—21	55	750	42
V-40C	Reflex	External Cavity	3-Pin	15—21	65	750	42
V-42B	3-Res. CW Amp.	27 db gain		.375—.425	12 kW	18 kV	3.25 A
V-42C	3-Res. CW Amp.	32 db gain		.890—.960	12 kW	18 kV	3.25 A
V-45	Fr. Multiplier 5X	Screw	Octal	1.8—2.0/9.0—10.0	280 @ —6 db	1000	80 mA
V-53	Reflex	Single Screw	3-Pin	10.7—11.7	200	500	70
V-53B	Reflex	Single Screw	3-Pin	10.7—11.7	200	500	70
V-54	Reflex	Lock Nut	Molded Leads	10.5—12.2	215	450	70
V-55	Reflex	Lock Nut	3-Pin	8.2—11.5	700	500	70
V-55B	Reflex	Lock Nut	Molded Leads	8.2—11.5	700	500	70
V-58	Reflex	Single Screw	3-Pin	8.5—10.0	620	500	70
V-63	2-Res. Osc.	Lock Nut	Molded Leads	8.5—10.0	6 W	1350	125
V-82	4-Res. Pulse Amp.	57 db gain 3% DU		9.225—9.375	7 kW pk	18 kV pk	2.9 A pk
VA-87B	4-Res. Pulse Amp.	57 db gain 0.3% DU		2.7—2.9	1.5 Meg W pk	110 kV pk	64 A pk
VA-87C	VA-87B 2.7-2.8 kMc; VA-87C 2.8-2.9 kMc						
VA-92	Reflex	Single Screw	Molded Leads	14.0—17.5	30	600	65 mA
VA-92C	Reflex	Single Screw	3-Pin	12.4—14.5	150	600	65
*VA-94	Reflex	Single Screw	Molded Leads	16.0—17.0	40	350	45
*VA-94B	Reflex	Single Screw	Molded Leads	15.8—16.2	30	350	45
VA-96	Reflex	Lock Nut	Molded Leads	22.0—25.0	35	850	40

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X-Band Stalo Cavity VA-1280B
Shown with VA-201B klystron

TUBE	TYPE	TUNER	BASING	FREQUENCY RANGE kMc	TYPICAL POWER OUTPUT MILLIWATTS	MAXIMUM RATINGS	
						RESONATOR VOLTAGE	RESONATOR CURRENT
*VA-97	Reflex	Single Screw	Molded Leads	34.0—35.6	18	425	50
*VA-98	Reflex	Single Screw	Molded Leads	23.6—24.4	25	400	45
VA-121B	TWT Amp. 35 db gain 1% DU			2.7—2.9	40 W pk	2300 V pk	190 mA pk
V-152B	Reflex	External Cavity	Molded Leads	8.8—9.6	70	350	60 mA
V-154	Reflex	Lock Nut	3-Pin	10.5—12.2	215	450	70
V-155	Reflex	External Cavity	Molded Leads	8.8—9.6	55	350	60
VA-157	Reflex	Single Screw	3-Pin	8.5—10.0	50	385	74
VA-161	BWO	Electronic	Molded Leads	8.2—12.4	40	650	30
*VA-201B	Reflex	Single Screw	Molded Leads	8.5—9.6	90	350	55
*VA-203B	Reflex	Single Screw	3-Pin	8.5—9.6	40	350	52
*VA-220A-F,Z	Reflex	Single Screw	Octal	5.925—7.750	1.2 watts	750	80
VA-220A 7.425-7.750 kMc; VA-220B 7.125-7.425 kMc; VA-220C 6.875-7.125 kMc; VA-220D 6.575-6.875 kMc; VA-220E 6.125-6.425 kMc; VA-220F 5.925-6.225 kMc; VA-220Z 7.75-8.1 kMc							
*VA-220J	Reflex	Single Screw	Octal	4.9—5.2	1 watt	750	80
*VA-221B to VA-221F	Reflex	Single Screw	Octal	5.985—7.555	40	330	35
VA-221B 7.225-7.555 kMc; VA-221C 6.955-7.255 kMc; VA-221D 6.705-7.005 kMc; VA-221E 6.285-6.585 kMc; VA-221F 5.985-6.285 kMc							
*VA-221H	Reflex	Single Screw	Octal	5.250—5.560	40	330	35
*VA-222B to VA-222F	Reflex	Single Screw	Octal	5.925—7.725	1.2 watts	750	80
VA-222B 7.125-7.425 kMc; VA-222C 6.875-7.125 kMc; VA-222D 6.575-6.875 kMc; VA-222E 6.125-6.425 kMc; VA-222F 5.925-6.225 kMc							
*VA-222R	Reflex	Single Screw	Octal	5.8—6.0	2 watts	750	80
V-262	Reflex	Single Screw	3-Pin	8.5—10.0	150	350	42
VA-800A, C	4-Res. CW Amp. 50 db gain			1.7—2.4	10 kW	20 kV	3 A
VA-804 Ser.	4-Res. CW Amp. 45 db gain			4.4—5.0	2 kW	10 kV	1 A
VA-805 Ser.	4-Res. CW Amp. 45 db gain			5.925—6.425	2 kW	10 kV	1 A
VA-806 Ser.	4-Res. CW Amp. 45 db gain			7.125—8.5	2 kW	10 kV	1 A
VA-808	4-Res. Pulse Amp. 60 db gain 1.6% DU			5.3—5.9	24.5 kW pk	23 kV pk	4.5 A pk
VA-809	4-Res. Pulse Amp. 60 db gain 2.5% DU			9.44	10 kW pk	20 kV pk	2.1 A pk
VA-816	5-Res. Pulse Amp. 0.25% DU			3.43—3.57	2.5 Meg W pk	125 kV pk	75 A pk
VA-6237 to VA-6242	3-Res. CW Amp. 27 db gain			.470—.890	15 kW	18 kV	3.25 A
VA-6237 470-530 Mc; VA-6238 530-584 Mc; VA-6239 584-656 Mc; VA-6240 656-728 Mc; VA-6241 728-806 Mc; VA-6242 806-890 Mc.							
VA-6310/V-260	Reflex	Single Screw	3-Pin	8.5—10.0	70	350	42 mA
VA-6312/V-270	Reflex	Single Screw	Molded Leads	8.5—10.0	70	350	42
VA-6314/V-290	Reflex	Lock Nut	Molded Leads	8.5—10.5	120	385	74
VA-6315/V-153	Reflex	Single Screw	Molded Leads	8.5—10.0	50	385	74
VA-6316/V-151	Reflex	Lock Nut	Molded Leads	8.5—10.0	25	350	52

*Braze-on external cavity. Bold face type numbers indicate recommended microwave tubes for new equipment design.

SILICON DIODES

FEATURES

- Recovery times under .15 μ sec
- High voltage ratings
- Operation up to 200°C
- High Inverse Resistance
- Subminiature size

MILITARY AND HIGH CONDUCTANCE TYPES

RATINGS AT 150°C AMBIENT

Type	Maximum Inverse Operating Voltage (volts)	Maximum Average Forward Current (ma)	Maximum Inverse Current (μ a) @ V
IN457*	60	25	5 @ 60
IN458*	125	25	5 @ 125
IN459*	175	25	5 @ 175
IN486A	225	50	25 @ 225
IN488A	380	50	25 @ 380

*JAN Types

HIGH FREQUENCY AND FAST SWITCHING TYPES

RATINGS AT 25°C

Type	Maximum Inverse Operating Voltage (volts)	Maximum Average Forward Current (ma)	Inverse Recovery Time (μ sec)
IN251*	30	75	.15
IN252	20	100	.15
SG213	200	30	.3
SG223	200	55	.5
SG228	200	80	1

*JAN Types

Write for Bulletin TE1350

GERMANIUM DIODES

FEATURES

- Complete Reliability
- Superior Forward Conductance
- Higher Inverse Resistance
- More Uniform Characteristics
- Greater Ruggedness

SPECIFICATIONS AND RATINGS AT 25°C

Type	Forward Current at +1V (ma)	Inverse Current at Specified Voltage (μ a @ V)	Max. Oper. Voltage (volts)	Description
IN270	200	100 @ -50	80	JAN TYPES
IN277	100	250 @ -50 75 @ -10 @ 75°C	100	
IN276	40	100 @ -50	70	
IN281	40	500 @ -50 30 @ -10	60	
IN126	5	500 @ -50 30 @ -10	60	JAN TYPES
IN127	5	300 @ -50 25 @ -10	100	
IN198	5	250 @ -50 75 @ -10 @ 75°C	50	
IN283	200	20 @ -10	20	COMPUTER TYPES
TI6G	40	100 @ -50 20 @ -10	60	
IN278	20	125 @ -50 @ 75°C	50	HI-TEMPERATURE TYPES
T22G	40	20 @ -10 @ 75°C	15	
T9G	100	20 @ -50 2 @ -10	60	HI-RESISTANCE TYPES
IN67A	5	50 @ -50 5 @ -5	80	

Other JAN types: IN38A, IN69, IN70, IN81, IN128

Write for Bulletin TE1300 & TE1319

SILICON Power

FEATURES

- Reliability at High Temperature
- High Power Handling Ability
- High Efficiency
- Rugged Construction
- Hermetically Sealed

MINIATURE TYPES

RATINGS AT 150°C AMBIENT

Type	Peak Recurrent Inverse Voltage (volts)	Maximum Average Forward Current (ma)	Maximum Inverse Current (ma)
TJ10A	100	200	.5
TJ25A	250	200	.5
TJ40A	400	200	.5

SILICON RECTIFIER STACKS

RATINGS AT 125°C AMBIENT

Circuit	DC Output		Stack Designation
	Voltage (volts)	Current (amps)	
6 ϕ Star	150	30	TL6S1A1/TR352
3 ϕ Bridge	325	18	TL6F1A1/TR352
3 ϕ Halfwave	1120	1.2	TD12Y6B1A4
1 ϕ Bridge	748	1.2	TD12B4C1A3
1 ϕ Center Tap	250	3.0	TD12C4C3A2

SILICON VOLTAGE REGULATORS and REFERENCES

FEATURES

- Excellent long-term stability
- High current handling ability
- Operation to 150°C
- Extended operating current range
- Small size, easy mounting
- Hermetically sealed

Reference assemblies are available with temperature coefficients to .002%. They are also available with voltage tolerances to 1% from 10 to over 100 volts. The assemblies are encapsulated in a miniature axial lead package.

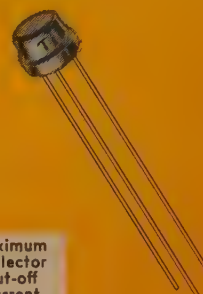
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SILICON TRANSISTORS

HIGH FREQUENCY TYPES

FEATURES

- Low I_{cor} typically under $.02 \mu a$
- Operation to $175^{\circ}C$
- Power Ratings of 200 mw
- High Frequency Operation
- Welded Hermetic Seal



Type	Minimum Common Emitter Current Gain B	Maximum Collector Voltage V_{ce} Peak (volts)	Typical Cut-off Frequency (mc)	Maximum Collector Cut-off Current @ $25^{\circ}C$ @ V_{ce} Max. (μa)
ST12	40	15	16	.5
ST32	40	30	16	.5
ST11	20	15	13	.5
ST31	20	30	13	.5
ST10	10	15	9	.5
ST30	10	30	9	.5

Write for Bulletin TE1353

GERMANIUM Power TRANSISTOR

FEATURES

- Operation to $85^{\circ}C$
- Linearity at High Currents
- Up to 10 watts Dissipation
- Low Thermal Resistance
- Small Size
- Hermetically Sealed



SPECIFICATIONS AND RATINGS AT $25^{\circ}C$				
TYPE	Minimum DC Common Emitter Current Gain (B @ I_c)	Maximum Collector Voltage V_{ce} Peak (volts)	Maximum Collector Current (amps)	Maximum Power Dissipation (watts)
2N83A	8 @ 1.0A	60	3	10
2N83	8 @ .5A	60	2	10
2N84A	12 @ 1.0A	45	3	10
2N84	12 @ .5A	45	2	10

Write for Bulletin TE1320

RECTIFIERS

RATINGS AT $150^{\circ}C$ CASE TEMPERATURE

Type	Peak Recurrent Inverse Voltage (volts)	Maximum Average Forward Current (ma)	Maximum Inverse Current (ma)
MILITARY TYPES			
IN253	95	1000	.1
IN254	190	400	.1
IN255	380	400	.15
IN256	570	200	.25

STUD MOUNTED TYPES

TM47	400	3000	.5
TM64	600	1000	.5

MEDIUM POWER TYPES

(amps)

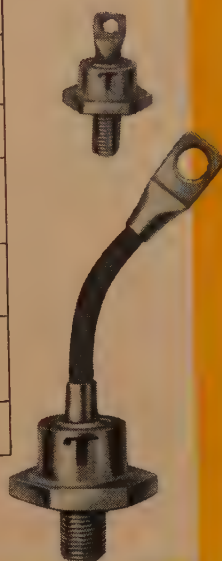
IN250A	200	20	5
TR301	300	10	5
TR402	400	20	5

HIGH POWER TYPES

(amps)

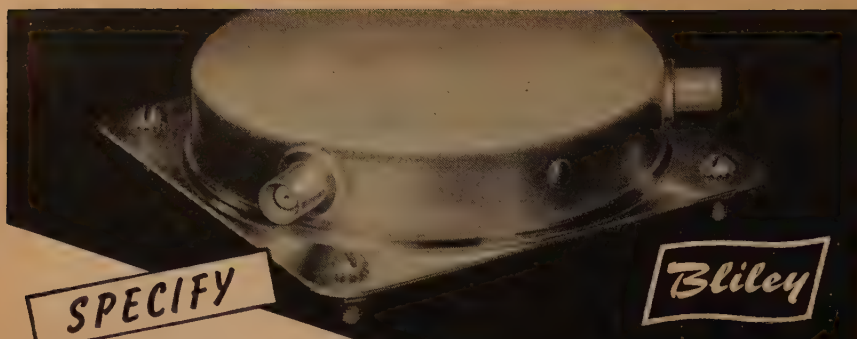
IN412A	100	35	5
TH402	400	35	5

Write for Bulletin TE1342 & TE1351



Type	Voltage Range (volts)	Maximum Dynamic Resistance (ohms)	Maximum Current @ $25^{\circ}C$ (ma)	Maximum Current @ $125^{\circ}C$ (ma)
Subminiature				
SV-5	4.3- 5.4	55	50	10
SV-7	6.2- 8	8	30	6
SV-11	9.0-12.0	50	20	4
SV-15	13.5-18	120	14	3
SV-24	20 -27	300	10	2
Miniature				
SV-804	4.3- 5.4	55	150	30
SV-806	6.2- 8	8	90	18
SV-810	9 -12	50	60	12
SV-815	13.5-18	120	40	8
SV-824	20 -27	300	27	5
Power				
			55 $^{\circ}C$ (amps)*	(ma)*
SV-904	4.3- 5.4	.5	2.0	500
SV-906	6.2- 8	.8	1.2	300
SV-910	9 -12	1.5	.8	200
SV-915	13.5-18.0	3	.6	150
SV-924	20 -27	8	.4	100

Write for Bulletin TE-1352
*Case temperature ratings



SPECIFY

Bliley

SOLID ULTRASONIC DELAY LINES by BLILEY ... FROM 3 TO 4500 MICROSECONDS

Solid ultrasonic delay lines by Bliley are supplied for any specified delay interval from 3 to 4500 microseconds.

Without resorting to temperature control and temperature adjustment, the following table shows practical tolerances that can be maintained with Bliley delay lines.

2-10	microsecond	delay	$\pm .05\%$	at 25°C
10-50	microsecond	delay	$\pm .03\%$	at 25°C
50-100	microsecond	delay	$\pm .05\%$	at 25°C
100-500	microsecond	delay	$\pm .07\%$	at 25°C
500-4500	microsecond	delay	$\pm .1\%$	at 25°C

Special bonding methods (transducers to fused quartz) and hermetically sealed cases assure permanent performance characteristics from -60°C to +85°C.



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MANUFACTURING ENGINEERS

The leader in **MINIATURE** audio transducers

Knowles audio transducers have set new performance and size standards.

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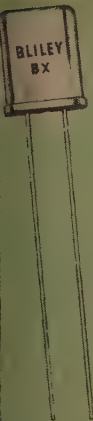
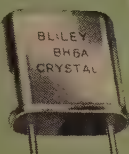
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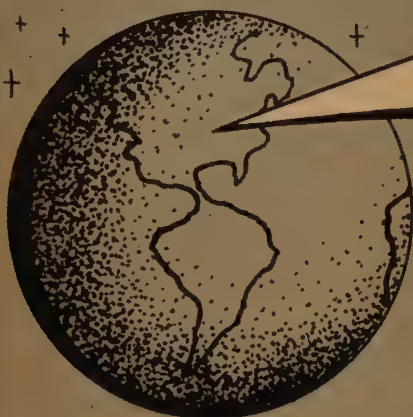
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BLILEY CRYSTALS • BLILEY OVENS

		BLILEY HOLDER	DESCRIPTION	MIL CRYSTAL UNIT
 BXW  BH6A  BH9A		BH6A (MIL HOLDER HC-6/U)	Hermetically sealed unit. Also available with wire leads as "BH6W." Freq. Range: 200kc to 125mc. Dimensions: 25/32" long x 3/4" wide x 11/32" thick (excl. pins). Bulletin #493.	CR-18/U, CR-19/U, CR-23/U, CR-25/U, CR-26/U, CR-27/U, CR-28/U, CR-32/U, CR-33/U, CR-35/U, CR-36/U, CR-44/U, CR-45/U, CR-46/U, CR-47/U, CR-48/U, CR-51/U, CR-52/U, CR-53/U, CR-54/U, CR-62/U
		BXW (MIL HOLDER HC-18/U)	Subminiature hermetically sealed unit, wire leads. Also available plug-in as "BXP." Freq. Range: 10mc to 125mc. Dimensions: 33/64" long x 27/64" wide x 11/64" thick (excl. wire leads). Bulletin #502.	CR-55/U, CR-56/U, CR-59/U, CR-60/U, CR-61/U
		BH9A (MIL HOLDER HC-13/U)	Hermetically sealed unit. Freq. Range: 4kc to 200kc. Dimensions: 1-17/32" long x 3/4" wide x 11/32" thick (excl. pins). Bulletin #501.	CR-37/U, CR-38/U, CR-42/U, CR-50/U
 BG6 SERIES  BG9 SERIES  BG12 SERIES		BG9 SERIES BG9D-S, 100kc Std. BG9A-S, 1000kc Std.	Sealed-in-glass crystal unit provides exceptional stability with minimum ageing. Used as reference source in secondary frequency standards. Bulletins #491 (1000kc) and #492 (100kc).	DIMENSIONS 2-1/2" long x 1-9/32" dia. (excl. pins) Octal Base
		BG6 SERIES	All glass, vacuum mounted crystal unit for tight tolerance performance with minimum change due to ageing. Advance process techniques assure high reliability. Freq. Range: 3mc to 125mc. Bulletin #496.	1-3/8" long x 3/4" dia. (excl. pins) Small Button Miniature Base
		BG12 SERIES BG12G-S, 100kc Std.	For primary frequency standards. Precision sealed-in-glass crystal unit combines high stability performance with minimum ageing. Temp. coefficient: Less than 0.2ppm per degree C. between +65°C. and +75°C. Bulletin #498.	3-11/16" long x 1-23/32" dia. (excl. pins) Octal Base
 BTC-2  BTC-1		BTC-1	Subminiature hermetically sealed package combines crystal control and temperature stabilization in a single plug-in unit. Freq. Range: 5mc to 125mc. Stability: $\pm .0003\%$. Bulletin #494.	1-5/8" long x 51/64" dia. (excl. pins) Std. Noval 9-Pin Base
		BTC-2	Hermetically sealed package combines all-glass vacuum mounted crystal with precise temperature control. Freq. Range: 4kc to 125mc. Stability: $\pm .00004\%$ in range 800kc to 125mc. Bulletin #497.	3-3/4" long x 1-1/4" dia. (excl. pins) Octal Base
		BLILEY TYPE	DESCRIPTION	
 TCO-2L TCO-2P OVENS  TCO-1 TCO-2 TCO-21 SERIES  TC-97 SERIES  TC91 TC92 TC93 OVEN SERIES		TCO-1 OVEN SERIES	Plug-in ovens for temperature control of single crystal unit in Bliley BH6A or MIL HC-6/U holder. Stability: $\pm 3^\circ\text{C}$. at 75°C . or 85°C . Supplied for 6.3 volt, 12.6 volt or 26.5 volt operation. Dimensions: 1-9/16" long x 1-3/16" dia. (excl. pins). Octal Base. Bulletin #499.	
		TCO-2 OVEN SERIES	Plug-in ovens for temperature control of two crystal units in Bliley BH6A or MIL HC-6/U holders. Stability: $\pm 3^\circ\text{C}$. at 75°C . or 85°C . Supplied for 6.3 volt, 12.6 volt, or 26.5 volt operation. Dimensions: 1-9/16" long x 1-3/16" dia. (excl. pins). Octal Base. Bulletin #499.	
		TCO-21 OVEN SERIES	Plug-in ovens for temperature control of two crystal units in Bliley BH6A or MIL HC-6/U holders. Stability: $\pm 2^\circ\text{C}$. at 75°C . or 85°C . Supplied for 6.3 volt, 12.6 volt or 26.5 volt operation. Dimensions: 1-9/16" long x 1-3/16" dia. (excl. pins). Octal Base. Bulletin #499.	
		TCO-2L TCO-2P OVENS	Plug-in ovens for temperature control of two crystal units in Bliley BH9A or MIL HC-13/U holders. Stability: $\pm 4^\circ\text{C}$. at 75°C . TCO-2L for 6.3 volt operation; TCO-2P for 12.6 volt operation. Dimensions: 2-3/16" long x 1-3/16" dia. (excl. pins). Octal Base. Bulletin #499.	
		TC91 TC92 TC93 OVEN SERIES	Precision temperature control ovens for Bliley crystal units: FM6, BH81A, MC7, BH8, MC75, MS46A, AR23W, BG9A series and BG9D series. Stability: $\pm 1^\circ\text{C}$. Supplied for 6.3 volt, 18 volt or 115 volt operation. Dimensions: 4-7/16" long x 3-3/4" dia. (excl. pins). Giant 7-pin base. Bulletin #500.	
		TC97 OVEN SERIES	High precision temperature control ovens for Bliley crystal units: BH8, MC75, MS46A, and BG12G-S. Stability: $\pm 0.25^\circ\text{C}$. Supplied for 6.3 volt operation. Dimensions: 4-23/32" long x 4-1/2" dia. (excl. pins). Giant 7-pin base. Bulletin #500.	

ELMENCO

DUR-MICA



The Revolutionary Development In Mica Capacitors

The Dur-Mica Capacitor is a silvered mica capacitor coated with a specially developed material which provides maximum protection at environmental extremes of moisture and temperature. This combination provides a reliability and life expectancy which far surpasses anything heretofore obtained.

OPERATING TEMPERATURE RANGE

—55°C. to +125°C.

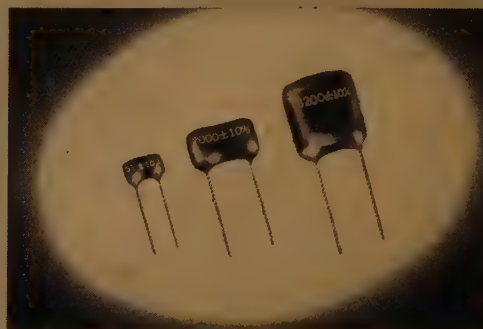
MINIMUM INSULATION RESISTANCE:

25000 megohms at 25°C.
1000 megohms at 125°C.

STABILITY (Capacity Drift):
±0.05% +0.1 mmf. MAX.

COMPONENT RELIABILITY

Life tests presently being performed at 125°C. and 150% rated voltage have passed 10,000 hours without a single failure. This is roughly equivalent to more than 20 years of operation under normal operating conditions.



DUR-MICA NOW AVAILABLE: DM-15, DM-19, DM-20, DM-30

ANNOUNCING a new addition to the DUR-MICA family... DM-42

CAPACITY VALUES UP TO:

.025 MFD.—500VDCW
.04 MFD.—300VDCW
.07 MFD.—100VDCW

DIMENSIONS:

1 1/2 x 7/8 x 1/4

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This handy DM-15 kit consists of five each of 51 capacity values from 1 mmf. to 820 mmf. Tolerance ±5%.

SPECIAL KIT LIST PRICE **\$95⁰⁰**

If purchased individually the actual list price is \$103.31.



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This Dur-Mica kit contains five each of 72 capacity values from 2 mmf. to 10,000 mmf. all 500VDCW and ±5% tolerance.

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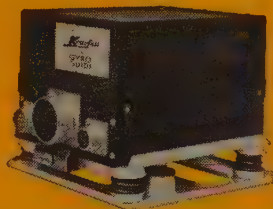
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NAVIGATION SYSTEMS

Kearfott Systems include 3 gyro, 3 and 4 gimbal platforms. They provide precise azimuth and vertical reference. Also Directional Gyro Compass Systems.



The Gyro Guide System shown provides Latitude Corrected Gyro and Magnetic Slaved Heading information. Weighs 20 lbs. Max. random drift 3°/hour.

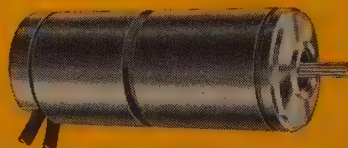
GYROS, SERVO MOTORS, SYNCHROS

Kearfott produces a complete line of gyros, servo motors, and synchros to satisfy every aircraft control requirement.



FLOATED INTEGRATING GYRO

3 Gyro Platforms, Floated Rate Integrating Gyros, Vertical, Free, Directional, Rate Gyros and Gyro operated rate switches—compact, lightweight, hermetically sealed.

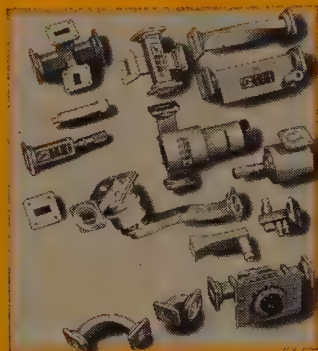


SERVO MOTORS, SYNCHROS

High torque, low inertia Servo motors, Servo-motor-Generators, inertial and viscous damped Servo motors 3/4" to 1-3/4" diameter, Synchro Transmitters, Control Transformers, Resolvers, Repeaters and Differentials in size 8, 11 and 15.

MICROWAVE EQUIPMENT

Kearfott offers engineering-design service, manufacturing facilities and a wide experience in the production of microwave components and test sets.



COMPONENTS

Including attenuators, directional couplers, crystal mixers, twists and tees for S, C, Xb, X and Ku bands.



TEST SETS (for X, C, and Ku)

A four-in-one instrument for functional testing of radar or beacon. Includes Wavemeter, Spectrum Analyzer, Power Monitor, and signal generator.

Bulletins giving physical and technical data on the various Kearfott Products will be sent on request. The Kearfott organization is available to assist in the development and manufacture of other precision components you may require.

KEARFOTT COMPANY, INC., Little Falls, N. J.

Sales and Engineering Offices: 1378 Main Ave., Clifton, N.J.
Midwest Office: 23 West Calendar Avenue, La Grange, Ill.
South Central Office: 6211 Denton Drive, Dallas, Texas
West Coast Office: 251 N. Vineland Avenue, Pasadena, Calif.

WESTERN MANUFACTURING DIVISION:
14844 Oxnard Street, Van Nuys, Calif.



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When ordering or seeking information
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FERRITE ISOLATORS
Selected standard units for fast delivery.

FERRITE ISOLATORS

RADAR TEST SETS

CUSTOM PLUMBING

For production radar and microwave applications Kearfott maintains complete design, fabrication and test facilities. If you need a complete R. F. system or a single component...check Kearfott.

Model No.	Freq. Range (KMC)	Nom. Peak Power (KW)	Avg. Power Rating (Watts)	Isolation (db) Min.	Isolation (db)† Max.	Insertion Loss (db)	VSWR	Overall Length (Ins.)	Net Weight (Ozs)	Waveguide Size (in. x in.)
LOW POWER—NARROW BAND WIDTH										
W152-1B-1	8.8°	2	20	20		0.25	1.30	2.75	6	1 x 1/2
W165-1A-1	8.5-9.6	1	50	15	33	0.50	1.25	1.8	10	1 x 1/2
W165-1B-1	8.8-9.0	1	50	25		0.25	1.25	1.8	10	1 x 1/2
W369-1A-1	5.4°	2	100	25		0.7	1.15	10.0	30	2 x 1
LOW POWER—10% to 20% BAND WIDTH										
W165-2B-1	8.5-9.6	1	10	20		0.7	1.40	2.2	12	1 x 1/2
W177-2A-1	8.5-9.6	1	100	23	29	0.5	1.10	2.0	15	1 x 1/2
W177-2C-1	8.2-10.2	1	100	25		1.0	1.15	2.5	20	1 x 1/2
W258-2B-1	5.4-5.8	1	50	17	22	1.5	1.15	3.0	18	1 1/2 x 3/4
HIGH POWER—10% OR MORE BAND WIDTH										
W177-2A-2	8.5-9.6	150	200	17	21	0.7	1.10	2.0	15	1 x 1/2
W177-1B-2	8.7-10.8	100	500	10		0.6	1.10	1.25	10	1 x 1/2
W177-2B-2	8.5-10.2	200	200	10	13	0.5	1.10	2.0	14	1 x 1/2
W177-1C-2	8.5-10.4	100	300	10	17	0.8	1.10	1.25	8	1 x 1/2
W177-2C-2	8.5-9.6	150	200	25	29	1.0	1.10	2.5	20	1 x 1/2
W177-1D-2	9.6-11.0	100	300	15	22	0.8	1.10	1.25	14	1 x 1/2
W569-1A-2	13.4-13.6	75	50	30		0.4	1.15	6.0	15	.702 x .391
W568-2B-2	12.5-18.0	100	100	10		1.0	1.15	2.25	32	.702 x .391
W668-2A-2	8.5-9.6	350	300	17	24	0.6	1.10	2.5	32	1 1/2 x 3/4

*Designed for narrow band use.

†Peak isolation at a spot frequency in the specified band.



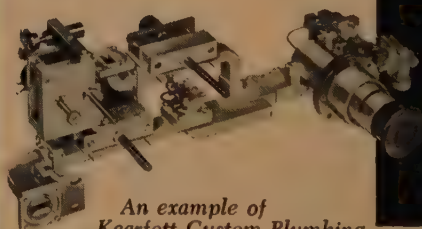
RADAR TEST SET

For C, X, Ku Band

Telephone for a demonstration appointment.
Special Test Equipment built to your specifications.

- A complete testing unit in one compact portable case.
- Makes all receiver and transmitter tests.
- Saves time, cost and space.
- 1957 Model incorporates new features.

Write for bulletins W104 and W105 for detailed information on test sets and ferrite isolators.



CUSTOM PLUMBING
Antenna Assemblies

An example of Kearfott Custom Plumbing

Advanced design is featured in the radar components now being produced by Kearfott microwave laboratories and production facilities. Complete departments are maintained for dip-brazing, testing and production, in our own plant.

Kearfott design engineers are available on your microwave problems.

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MICROWAVE DEPARTMENT
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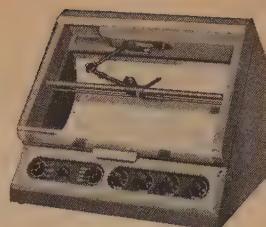
Librascope Instrumentation

for highest accuracy
in graphic
data processing

Exclusive features designed and developed by Librascope have made these plotters and accessories dependable instruments for top performance and sustained accuracy.

Digital or analog data can be automatically translated and recorded with Librascope's X-Y Plotter and associated instruments. Permanent representation of two independent variables can be accurately plotted for analysis and control.

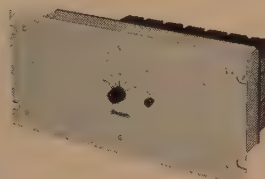
MODEL 200-B X-Y PLOTTER, used for DC signal input, has full-scale sensitivities of five millivolts, and an input impedance of 1,000 megohms. Utilizing standard reference cells, this model provides drift-free operation. Available external reference voltages may be substituted. Quick interchangeability of input sections is provided. Continuous or point plotting... Rack or case mounted.



MODEL 200-A uses an input of 10,000 ohm resistance potentiometers as an input translator providing 10 to 1 scale expansion and origin positioning. Available standard digital input accessories are essentially inputs of this type. Any resistance potentiometer will provide an analog input for this configuration. Continuous or point plotting... Rack or case mounted.

LIBRASCOPE XY DECIMAL KEYBOARD

—This keyboard consists of a three-decimal bank for each axis with associated plus-minus keys. Depressing of the plotting bar initiates plot and clears keyboard automatically. Manual "clear" button is also provided. This unit features Librascope-developed positive-action non-sticking, self-wiping contacts.

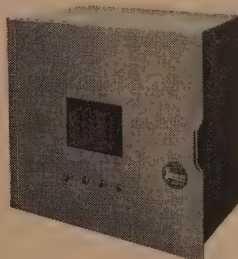
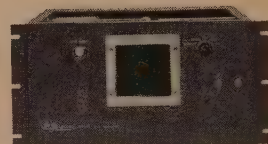


LIBRASCOPE BINARY CONVERTER, MODEL 252 consists of two banks of relays and precision resistors simulating a precision potentiometer. The resistors weight the relays in straight binary so that each bank serves as an input to one axis of the XY plotter. Total resistance is 10,000 ohms per bank. Relays within the converter control the plot cycle.

Mounting: Standard RCA, RMA rack mounts.

LIBRASCOPE PUNCHED CARD CONVERTER—This relay-operated converter accepts three-decimal digit and sign, two channel, IBM punched card information and converts it to analog form for input to XY plotters. Cards can be manually fed through the IBM reading brushes one at a time or automatically read at rates to 50 cards per minute with an accuracy of 0.1%.

Mounting: Standard RCA or RMA rack mounts or in case.



LIBRASCOPE PUNCHED TAPE CONVERTER operates from punched tape reader. Can be modified to operate with any digital computers furnishing a punched tape output. If printed listing desired, unit may be operated from tape-actuated typewriter, such as the Flexowriter. Programming need not be specified on tape. Sequence operation. A particular tape may be programmed to accommodate various tape formats.

Accuracy, $x/-0.1\%$.

Career opportunities exist at Librascope for qualified engineers, physicists and mathematicians. Learn about Librascope's new "Creative Project Development Teams." Contact Glenn Seltzer, Employment Manager.



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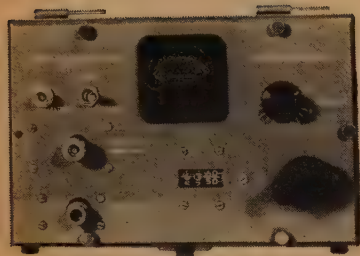


LIBRASCOPE

Librascope, Inc., 808 Western Ave., Glendale, Calif.

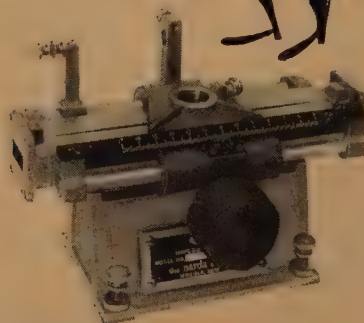
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*Ah
precision!*



FREQUENCY METER MODEL 802B

Range of 2350 to 10,500 megacycles covers the most used frequencies. Veeder-root digital counter provides accurate, legible readings which are referred to calibration charts for frequency in megacycles to rated accuracy of 0.2% without calculation. Completely self-contained with built-in detector and indicating meter.



SLOTTED LINES MODELS 219 THROUGH 224

Six portable models, incorporating carriage drive mechanism integral with wave guide assembly measures VSWRs and impedances from 2600 to 18,000 megacycles per second, covering wave guide sizes from 3 X 1½ inches to .702 X .391 inches. Can be used with all standard military and commercial RF probes and detectors.

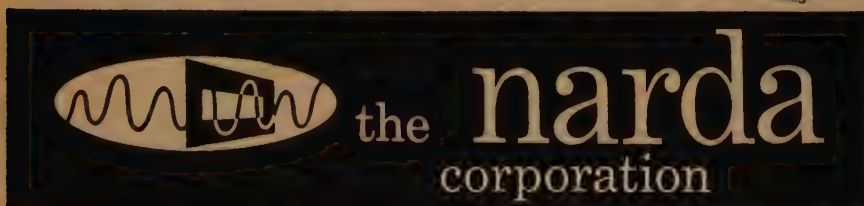
COMPLETE LINE OF COAXIAL AND WAVEGUIDE INSTRUMENTS INCLUDES:

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FREQUENCY METERS
HORNS
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on standard precision-
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A complete solution to your closure problem is as near as your telephone! Chances are, Hudson can supply an economical standard stock item, from factory stocks, that will meet your requirements exactly. Where specifications call for unusual designs, Hudson can produce precision-drawn custom closures to meet your assembly line schedules.

Hudson standard and special closures are available with complete cover assemblies if desired. Quotations on sub-assemblies, including certified spot welding and silver soldering will be supplied promptly on receipt of your drawings and data.



Standard
Square
Cases



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Rectangular
Cases



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Round
Cases



Complete
Cover
Assemblies



Special
Custom
Closures

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What do you need — a single tube — or 50,000? A modification? A completely new component? Bomac is capable of meeting your needs.

Buyers know Bomac as one of the nation's largest designers and manufacturers in the highly specialized field of microwave tubes and components.

They also know these 3 important facts about Bomac reliability:

1 Every tube, every component is 100% tested for peak performance and maximum uniformity before shipment.

2 Bomac's engineering and development service is complete in every detail.



Excellent reasons why you can count on Bomac to meet your needs

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TUBES AND COMPONENTS

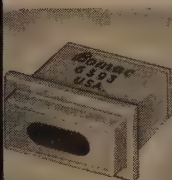
B

3 Bomac offers a complete line —
over 750 different tubes and components.



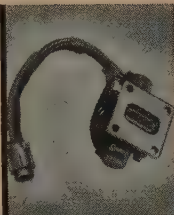
ATR ... All standard types. Many more developed in our laboratories. Fixed-tuned — highly specialized as required: low Q, or high Q, miniaturized, special shapes and mounts.

A type for known application — all fixed or tunable special types: mounted, dual and more.



REFERENCE CAVITIES ... Dent with multiple frequencies and dual mode with fixed frequency. Temperature compensated to ± 0.3 MC from 0°C to 100°C.

SILICON DIODES
The most sensitive, uniform and stable diodes (1N23D). Also available in matched pairs for X-band and S-band. Also supplied as mixer diodes with either normal or reverse polarity.



KLYSTRONS ... Bomac offers a line of reflex klystrons. They offer maximum performance at high altitudes without pressurization.

PRESSURIZING WINDOWS ... for all wave guide sizes, broad band characteristics with low insertion loss, temperature range — 55°C to 100°C and 30 lb./sq. in. gage pressure in either direction.



HIGH FREQUENCY TRIODE OSCILLATOR ... This triode, for oscillator use at high frequencies, is extremely reliable and will withstand high shock and vibration.



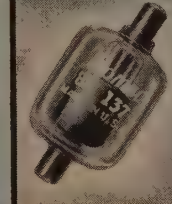
SHUTTERS ... Bomac was first to develop shutter tubes and integral TR combinations for continuous crystal protection. All waveguide sizes available.



MAGNETRONS ... High frequency, tunable and fixed-tuned magnetrons are a Bomac specialty. Frequencies from X band to classified millimeter bands. Special types designed to meet your requirements.



NOISE SOURCE TUBE ... A gas discharge tube for use as a noise generator in noise measuring test equipment.



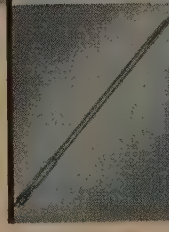
TR ...
ever attenua-
is required in
duplexer be-
the TR, pres-
are available.
operate as
as 10 mega-
ts.



HYDROGEN THYRATRONS ... Bomac thytrons provide the following advantages: precise triggering — high repetition rates — high power levels — zero bias operation — electrical stability.



DUPLEXERS ... Bomac will design, develop, and produce complete duplexers to customer specifications.



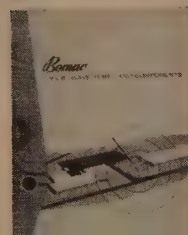
SURGE PROTECTORS ... Bomac surge protectors are hold-off diode tubes. In a wide range of breakdown voltages: from 100 to 33000. Consult our engineering department for your applications.

most exacting requirements

For more information . . .

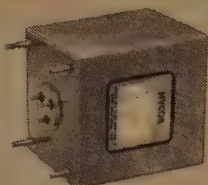
Bomac

LABORATORIES, INC.,
Beverly, Mass.



write for Bomac's free, 6-page file-size folder containing details and specifications on more than 500 different microwave tubes and components.

HYCOR precision components



WAVE FILTERS

Low, high and band-pass types with high "Q" toroid elements. Ranges up to 100 kc., up to 10,000 ohms impedance.

Stack types. Also designed for special circuitry or miniaturization.

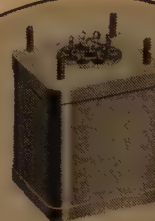
send for bulletin F-P



TOROID COILS

High "Q" factor, excellent current and temperature stability. Encapsulated, fully protected from shock and environmental conditions. Also in encapsulated and metal cased types.

send for bulletin STP



MAGNETIC AMPLIFIERS

Toroid construction. Standard types with 10,000 or 50,000 power gain. Also designed for specified power, impedance, and response requirements. Cased per military specs.

send for bulletin MA

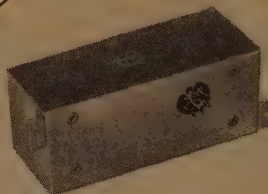


RATIO TRANSFORMERS

0.1% accurate even with wide changes in load, frequency, ambient temperature. Up to 1000:1 ratio. Special accuracies to .005%.

Miniature encapsulated and hermetically sealed MIL-T-27 types.

send for bulletin RT



TELEMETERING FILTERS

Low and band-pass filters. Negligible hum pickup in low level circuits. Excellent phase linearity and attenuation accuracy. Standard and sub-miniature sizes.

send for bulletin TF

RESISTORS

Encapsulated, for 0.1 watt to 4 watts. Standard tolerance $\pm 0.1\%$. Fully protected. Exceed



MIL-R-93A spec. With axial or radial leads, lugs, or leads for printed circuitry.

send for bulletin PH



DECADE INDUCTOR UNITS

Accurate, stable inductance values for design or experimental work at 150 to 20,000 cps. Four types: .001, .01, .1 or 1 Henry per step. 2% accuracy per step.

send for bulletin D-2



POWER TRANSFORMERS

Miniature encapsulated types rated 14 V.A. Precise regulation—no external fields. 375 to 525 cps, primary voltage 115, 28 or 12.6 V. Multiple secondaries. Specials supplied.

send for bulletin WT



PROGRAM EQUALIZER

Bridged T constant impedance type, low and high selectors. Impedance: 500/600 ohms in-out. 14 db insertion loss. Pad compensation with key in "out" position.

send for bulletin E



MAGNETIC CLUTCHES

Only 1" o.d., but deliver torque of 15 oz. in. on 2 watts. 5 millisecond response. Gear, cable or direct-in-line drives. Economical for multiple clutching assemblies.

send for bulletin C-2



HYCOR



VARIABLE FILTER

Low-pass, high-pass with negligible hum pickup, distortion and aging. Same eight cutoff frequencies, about 16 db attenuation per octave on both high and low.

send for bulletin S-1

DIVISION OF INTERNATIONAL RESISTANCE CO.

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AMPLIFIERS, magnetic



solid construction throughout; standard catalogued types available—special designs to suit requirements. Line frequencies of 60, 400 and 800 c.p.s. Operating temperatures: -55°C. to $+100^{\circ}\text{C.}$ Cased per military specs. (Hycor MA)

ATTENUATORS, audio



Available as: Bridged T Attenuators, Ladder Network, Potentiometers, Precision Decade Attenuators, and VU Meter Multipliers. Resistive elements and contacts imbedded in specially prepared plastic compound—provides protection against extreme humidity, mechanical shock, and wide temperature variations. Switch contacts are flush with plastic, providing smooth, easy to clean surface • BRUSHES CANNOT TRIP • Switch noise level extremely low. "Lubricated for life" oilite bearings. Available with or without detents. (A-2)

SWITCHES & DRIVES, magnetic



ONLY TWO WATTS OF POWER REQUIRED to develop 15 oz. in. of torque with a response time of 5 milliseconds—only two moving parts. Minimum dimensions (only 0.1 in. d.) facilitate use in compact assemblies, extremely low cost. (Hycor C-2) (special design applications).

ISOLATORS, Toroid (cased & uncased)



Hermetically molded in special tough plastic compound. Will withstand military temperature requirements, 95% humidity—boiling salt water, high degree of mechanical shock, MIL-C-16923, Type C, specification tests. (Hycor—STP)

COMPUTER COMPONENTS

ACCUMULATORS

AMPLIFIERS, MAGNETIC AND SERVO

CIRCUITS—POTTED, PLUG-IN, COMPUTER (PACKAGED)

INTEGRATORS

TRANSDUCERS

TRANSFORMERS, PULSE

POTENTIOMETERS & CONTROLS



IRC Type No.	JAN or MIL Equivalent	Rated Wattage	Standard Tolerance Percent	Temp. Rise at Rated Load, °C.	Tapers	Max. Operating Temp. °C.	OHMIC VALUES AVAILABLE		Mechanical Rotation	DIMENSIONS IN INCHES				Catalog Data Sheet
							Min.	Max.		Depth	O.D. or Width	Standard Bushing	Switches	
	RA-20	2	10	60	Yes†	100	1	25,000	300°	3/4†	1 1/4	3/8 3/8-32	Yes†	A-3
	RV-2	1/4	20	60	Yes†	100	250†	15 meg.†	300°	3 3/4†	1 5/8	3/8 3/8-32	Yes†	A-4
		2	20 & 30	60	Linear	100	5,000	50 meg.	250°	2 3/32	2 13/16	3/8 3/8-32	No	SM6915-100-001

POTENTIOMETERS—



Standard Multi-Turn—Type H—Combine advantages of reliability, sturdiness and miniaturization. Standard sizes from 1" dia. to 3/4" dia.; 1, 5 and 10 turn models—full degrees of rotation available on special order. (A-5)

Sealed—Type MS—All cases half hard brass with all joints rolled and bonded. "O" ring seal between shaft and bushing—1" and 3/4" dia.—5 and 10 turn models. (A-6)

Hermetically-Sealed—Type HS—Where moisture sealing as above is not sufficient, these precision potentiometers are completely independent of atmospheric conditions—special bellows drive system—3/4" and 1" dia.—1, 5 and 10 turn models. (A-7)

Miniature—Type SM—Offer rugged construction and dependable service where space is at a premium. Both single and multi-turn units available with case dia. only 1/2". (A-8)

High Temperature Operation—Type H—HT—Operate at ambient temperatures up to 150° C.—3/4" and 1" dia.—1, 5 and 10 turn models. (A-9)

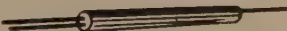
Precision Single Turn—Type B—Incorporates maximum accuracy and reliability with ultra low torque ball bearings and ganging for in-the-field phasing, 7/8" dia. (A-10)

DECADE INDUCTORS



design and experimental work on audio filters, equalizers, and tuned circuits at frequencies between 150 to 20,000 cycles. Four units available in ranges from .001 Henry to 10 x 1.0 Henry. When all 4 units are connecting in series, 11, 110 steps from .001 Henry to 11.11 Henries are obtained. Excellent current and temperature change stability. (Hycor D-2)

DELAY LINES, Distributed-Constant (new)



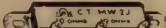
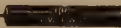
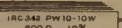
Time delays of less than 1.0 microsecond at impedance levels of 4,000 ohms and less. (S-2)

EQUALIZERS, program



Standard rack panel, slotted, 3 1/2" high, max. depth 7 1/2". Bridged T constant impedance. 500/600 ohms, in-out. Low and high frequency selector switches. Low and high frequency controls in 2 db steps, in-out key. All capacitors and inductors hermetically sealed for lifetime service. Variable attenuators are of "bridged T" type.

FIXED AND ADJUSTABLE RESISTORS

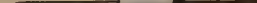
IRC Type No.	JAN or MIL Equivalent	Rated Wattage	Standard Tolerance Percent	Temp. Rise at Rated Load°C.	Temp. Coefficient %/°C.	Max. Operating Temp.°C.	OHMIC VALUES AVAILABLE			DIMENSIONS IN INCHES			Catalog Data Sheet
							Min.	Max. (JAN or MIL)	Max. (Commercial)	Length	O.D. or Width	Ferrule O.D. ^x	
CARBON, deposited 													
DCC	RN-20	½	1	75	†	120	10	2 meg.	25 meg.	⅞	.156		B-4
DCF	RN-25	1	1	80	†	120	10	4.99 meg.	50 meg.	1⅞	.297		B-4
DCH	RN-30	2	1	95	†	120	15	10 meg.	100 meg.	2⅞	.297		B-4
MDA (molded)	RN-60	⅓	1	18	†	150	50	1 meg.	1 meg.	1⅞	.130		B-9
MDB (molded)	RN-65	¼	1	30	†	150	20	2 meg.	1 meg.	1⅞	.203		B-9
MDC (molded)	RN-70	½	1	50	†	150	10	5 meg.	25 meg.	2⅞	.261		B-9
MDF (molded)	RN-75	1	1	47	†	150	10	10 meg.	50 meg.	1⅞	.395		B-9
MDH (molded)	RN-80	2	1	63	†	150	15	20 meg.	100 meg.	2⅞	.395		B-9
COMPOSITION, fixed 													
BTR†	RC-09	⅓	5, 10 & 20	40	†	130	10	22 meg.	100,000 meg.	1⅞	⅜		B-1
BTS†	RC-20	½	5, 10 & 20	45	†	130	10	22 meg.	100,000 meg.	1⅞	⅜		B-1
BTA†	RC-30	1	5, 10 & 20	52	†	130	10	22 meg.	22 meg.	2⅞	⅜		B-1
BTB†	RC-41	2	5, 10 & 20	75	†	130	100	20 meg.	22 meg.	1⅞	⅜		B-1
FUSE RESISTORS 													
FR-7.5		7.5	10	175	†	275	†	—	†	1⅞	⅜ x 1⅞		P-3
(Fuse resistors of 4.7, 5.6, 7.5 and 9.0 ohms with Standard fusing current vs. time listed in Bulletin P-3. Special fuses will be engineered to meet circuit requirements.)													
HIGH FREQUENCY 													
MP IRC manufactures 22 different MP types. Available in wattage ratings from 1 to 90 watts, standard tolerance is 20%, Temp. rise at rated load 77°C., Temp. coefficient from -.005%/°C. to -.07%/°C., Max. operating temp. 100°C. Minimum values available from 10 ohms to 100 ohms, Max. (Commercial) value available from 1.0 meg. to 6.0 meg. Lengths vary from 1" to 19⅞", diameters from ⅜" to 2". See Data Bulletin F-1 for individual specifications. Prices upon request.													
MPF-12	RF-30	2	20	77	-.005 to -.07	100	20	100,000 ohms	1.5 meg.	1⅞	⅜		F-1
MPG-16	RF-31	4	20	77	-.005 to -.07	100	20	1 meg.	1.5 meg.	2	⅜		F-1
MPC-1	RF-40	1	20	77	-.005 to -.07	100	20	1 meg.	1.0 meg.	1	⅜		F-1
HFR†	RF-50	¼	20	40	-.005 to -.07	100	20	1 meg.	125 meg.	⅞	⅜		F-1
MPX-2	RF-51	2	20	77	-.005 to -.07	100	30	1 meg.	1.5 meg.	2	⅜		F-1
HIGH TEMPERATURE (new) 													
HTC	RN-20	½	±1	†	†	250	100	—	2 meg.	⅞	⅜		HT
HTF	RN-25	1	±1	†	†	250	100	—	5 meg.	1⅞	1⅞		HT
HTH	RN-30	2	±1	†	†	250	200	—	10 meg.	2⅞	1⅞		HT
HIGH VOLTAGE 													
MV IRC manufactures 21 additional MV types. Available in wattage ratings from 1 to 90 watts, standard tolerance 20%, Temp. rise at rated load 77° C., Temp. coefficient from -.005 to -.07%/°C., Max. operating temp. 100°C. Minimum values available from 2500 ohms to 1.0 megohm, Maximum (Commercial) value available from 1.0 megohm to 20,000 megohms. Lengths vary from 1" to 19⅞", diameters from ⅜" to 2". See Data Bulletin G-1 for individual specifications. Prices upon request.													
MVM-5°		2	77	-.02	100	100 meg.			1,500 meg.	5½	⅜	Solder Lug	G-1
MVM-6°		2	77	-.02	100	100 meg.			1,500 meg.	6	⅜	Solder Lug	G-1
HIGH VOLTAGE, pyrolytic (new) 													
PVX-1		1	†	†	150	1,800			5,000 meg.	1⅞	⅜		HV
PVX-2		2	†	†	150	5,000			20,000 meg.	2⅞	⅜		HV
PVX-3		3	†	†	150	10,000			20,000 meg.	3⅞	⅜		HV
METAL FILM, precision (new) 													
MEC (molded)	RN-70	½	1	50	†	175	100	5.0 meg.	500 K	2⅞	.261		B-3
MEF (molded)	RN-75	1	1	47	†	175	100	10.0 meg.	2 meg.	1⅞	.395		B-3
VOLTMETER MULTIPLIERS, sealed precision 													
MFA†	MFA	1 ma.	0.5	25	.0022	105	3.5 meg.	6.0 meg.	12.0 meg.	9⅞	1⅞	1⅞	D-2
MFB†	MFB	1 ma.	0.5	25	.0022	105	1.0 meg.	3.5 meg.	6.0 meg.	5⅞	1⅞	1⅞	D-2
MFC†	MFC	1 ma.	0.5	25	.0022	105	0.5 meg.	1.0 meg.	1.2 meg.	2⅞	1⅞	1⅞	D-2
WIRE WOUND, insulated 													
MW-2 (molded)		7.4†	5 & 10	100	†	140	4.0		10,000	2†	1⅞†		B-2
MW-3 (molded)		10.9†	5 & 10	100	†	140	7.0		17,500	3†	1⅞†		B-2
MW-4 (molded)		14.4†	5 & 10	100	†	140	10.0		25,000	4†	1⅞†		B-2
MW-5 (molded)		17.9†	5 & 10	100	†	140	13.0		32,500	5†	1⅞†		B-2
WIRE WOUND, molded 													
PW-4• (molded)		4	10	215	†	190	1.0		8,200	1⅞	2⅞		P-1
BW-½•	RU-3	½	5 & 10	70	†	110	0.24	470	820 ohms	⅞	1⅞		B-5
BW-1•	RU-4	1	5 & 10	70	†	110	0.47	2,200	5,100 ohms	1⅞	⅜		B-5
BW-2•	RU-6	2	5 & 10	90	†	130	1.0	3,300	8,200 ohms	1⅞	2⅞		B-5
WIRE WOUND, power 													
PW-5•		5	10	150	†	275	0.24		6,200	⅞	⅜ x 1⅞		P-2
PW-7•		7	10	170	†	275	0.51		15,000	1⅞	⅜ x 1⅞		P-2
PW-10•		10	10	190	†	275	1.0		25,000	1⅞	⅜ x 1⅞		P-2
PW-20 (new)		20	10	250	†	300	0.75		2,500	2⅞	⅜ x 1⅞		P-4
PC-5 (new)		5	10	125	†	275	0.51		15,000	1⅞	⅜ x 1⅞		P-5

WIRE WOUND, power, uninsulated 

(open wire wound resistors) available in ratings of 6 watts per inch, lengths up to 3 inches, max. values of 800 ohms per inch. Standard 10% Tolerance—(B-10)

RADIAL LEAD TYPE (new)													
W-3J	.5	1	25	.0022	105	0.1	.3 meg.	1.6	meg.	9/16	1 1/32		D-1
W-4J	1.0	1	25	.0022	105	0.1	.75 meg.	4.0	meg.	1	1 1/32		D-1
W-8J	.5	1	25	.0022	105	0.5	.29 meg.	1.5	meg.	1 1/2	1 1/32		D-1
W-10J	.25	1	25	.0022	105	10.	40K	.215	meg.	1 1/2	9/32		D-1
W-11J	.50	1	25	.0022	105	0.1	.4 meg.	2.0	meg.	2 1/2	1 1/32		D-1
W-20J	.25	1	25	.0022	105	10.	35K	150K		5/8	1/4		D-1
W-21J	.25	1	25	.0022	105	10.	70K	500K		3/4	1/4		D-1
W-22J	.25	1	25	.0022	105	10.	35K	250K		3/4	1/4		D-1
W-23J	.5	1	25	.0022	105	0.5	225K	1.5	meg.	3/4	3/8		D-1
W-24J	.5	1	25	.0022	105	0.1	350K	1.5	meg.	1	1/2		D-1

RE WOUND, precision, encapsulated



Shock, moisture, temperature proof. Over 50 types—from sub-miniature 0.1 watt, max. resistance 50K ohms to 4 watt units—20 megohms. Meet all Mil-R-93A requirements. Resistance range from 1.0 ohm to 20 megohms. Tolerances to 0.05%. Temp. Coefficient $\pm 0.0022\%/^{\circ}\text{C}$. Operating Temperature -65°C . to $+125^{\circ}\text{C}$. Axial and radial leads. Lug types, and units designed for use in printed wiring assemblies. (Hycor PH)

RESISTANCE STRIPS & DISCS  Resistance strips are available in 6 different widths—from $\frac{7}{8}$ " to $2\frac{3}{4}$ ", lengths $12\frac{1}{2}$ ". Rated wattage .8/sq. in., Standard Tolerance 20%, Temp. Rise at rated 55°C ., Max. Operating Temp. 80°C . Values available from 19 ohms/sq. in. to 1.0 megohm/sq. in. Special sizes and shapes can be supplied to fit any application or without silvered terminations. See Data Bulletin T-1 for individual specifications. Prices upon request.

manufactures concentric disc type resistors in 9 different sizes—outer diameters ranging from .240 to 1½". Rated wattage .8/sq. in., Standard Tolerance 20%, Temp. at rated load 55°C., Max. Operating Temp. 80°C. Values available from 5 ohms to 100,000 ohms. See Data Bulletin T-1 for individual specifications. Prices

FIXED AND ADJUSTABLE RESISTORS (Continued)

IRC Type No.	Ratings	Standard Tolerance Percent	Temp. Rise at Rated Load °C.	Max. Operating Temp. °C.	VALUES AVAILABLE		DIMENSIONS IN INCHES		Min. Forward Current at 2V, drop for single cell	Catalog Data Sheet
					Min.	Max.	Length	O.D.		
CHOKES, insulated 										
CL½		10 & 20		140	0.22 m.h.	1.0 m.h.	¾	1⅜		H-1
CLA●		5 & 10		140	0.22 m.h.	7.5 m.h.	2⅜	¼		H-1
CL1●		5 & 10		140	.47 m.h.	24 m.h.	1¼	¼		H-1
CL2		5 & 10		140	1.0 m.h.	39 m.h.	1¾	2⅜		H-1

RESISTORS, current pulse viewing (new) 

For viewing current-wave forms with rise times from 0.5 to 0.01μ seconds with minimum distortion. 0.47 ohms to 100.0 ohms—20% tolerance. 150 volts max. pulse voltage. Inductance not greater than .01 microhenries. (S-4)

FILTERS 

Precision Wave—Low-pass, high-pass, band-pass. Excellent characteristics due to use of high "Q" toroid inductor elements. Available over wide impedance and frequency ranges. (Hycor F)

Telemetry—Complete line for every bandwidth and channel. Standard and sub-miniature sizes. Specially designed to conform to new specs for phase linearity and attenuation accuracy. (Hycor TF)

Variable—Low-pass, high-pass. Standard rack panel, slotted, 3 1/2" high, max. depth 7 1/2". Low and high frequency cutoff controls cover 100, 250, 500, 1000, 2000, 3000, 4000, and 5000 cycles. Approx. 16 db attenuation per octave; 500/600 ohms, in-out impedance. (Hycor S-1)

LAMINATES, FLUOROPOLY 

Copper foil bonded to a fluorocarbon plastic base—available in 12" x 12" sheets copper clad on one or both sides. Base thicknesses .031" to 1/8" copper, 1, 2, 3, 5 and 7 oz. Special thicknesses can be supplied. (LT-2)

RECTIFIERS AND DIODES  

Miniature selenium rectifiers and diodes in the microampere and milliampere range. Voltage ratings—26 to 36 VIP/cell rms. Inverse resistance up to 20 megohms at 20 volts D.C./cell. 125°C. max. operating temperature. (SR-1)

Special designs 9 KR 2 dual diodes.

TERMINALS, hermetic seal 

Four body sizes; six lead types—available in any combination. Bodies of molded Fluorocarbon plastic. 232°C. melting point solder. Copper ring and annular copper ring bonded to plastic body. All exposed metal plated with 30/70 tin-lead alloy. Overall lengths from 45/64" to 1 1/8"; overall body dia. from .203" to .281". (LT-1)

TRANSFORMERS  

Toroid power—miniature—plastic encapsulated. Up to 15 V.A. available. Frequencies from 400 c.p.s., 115 V. and higher. Multiple secondaries for heater and plate voltages. (Special designs available to suit your specification.) (Hycor WT)

Precision ratio—accurate voltage division and multiplication to accuracies of .01%. Accuracy maintained with moderate loading. Stock catalog types—specials to order. Miniature sizes, plastic encapsulated, and hermetically cased to MIL-T-27 specification. (Hycor RT)

*Also supplied with adjustable feature.

†Non-inductive—all other types are inductive to varying degrees. See data bulletin for more details.

‡See data bulletin.

°MP and MV resistors can be encapsulated to improve voltage and moisture characteristics. Several types are now available. IRC offers engineering assistance for your design and application problems.

•All IRC products may be purchased through Electronic Parts Distributors. Those identified with a • are normally carried in their stocks.

(new), indicates new items since January 1957.

×Check catalog for spacing.

FOR ADDITIONAL INFORMATION send for the Technical Bulletin indicated or contact your nearest IRC representative

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1957

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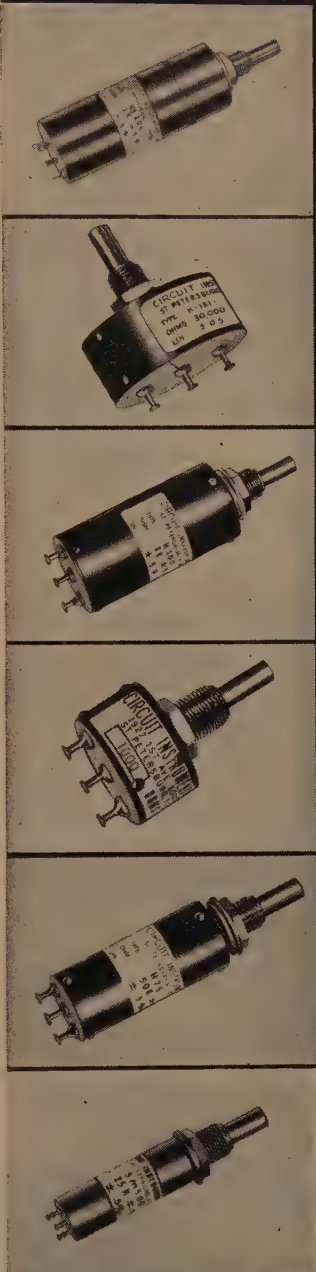
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TYPES HS-100 and HS-105

Hermetically sealed, 1" diameter precision instruments. 5 and 10 turn types. Type HS-100 3600 —0 +4° rotation, 4 watts. Type HS-105 1800 —0 +4° rotation, 3 watts. Stupakoff Type 95-1048 terminals. Standard resistance values 250 to 100,000 ohms. Hermetic sealed case is nitrogen filled.

TYPE H-151

Only 1½" diameter x ¾", exclusive of shaft and turret terminals. Continuous rotation; stops available on special order. Standard linearity ±0.5%. Power rating 3 watts. Standard resistance values from 50 to 15,000 ohms. Weight 2 ounces.

TYPES H-100 and H-105

Slim 1" diameter. 5 and 10 turn types. Rotation: Type H-100 3600, —0 +4°; Type H-105 1800, —0 +4°. Power rating 4 watts and 3 watts respectively. Flexible silver plated terminals or rigid turrets available.

TYPE H-101

Tiny 1" diameter by ¾", exclusive of shaft and turret terminals. Weight is 1 ounce. Power rating 1½ watts. Standard resistance values from 50 to 10,000 ohms. Continuous rotation; stops available on special order

TYPES H-750 and H-755

Ultra-thin ¾" diameter size. Type H-750 3 watts, standard resistance values from 250 to 50,000 ohms. Type H-755, standard resistance values from 125 to 25,000 ohms. Either flexible silver plated terminals or rigid turrets available.

TYPE SM500

Sub-miniature ½" diameter by 1½" size; exclusive of shaft and turret type terminals. Weight only 1 ounce. 3600 —0 +4° rotation. Power rating 1.5 watts. Standard resistance values from 250 to 100,000 ohms.

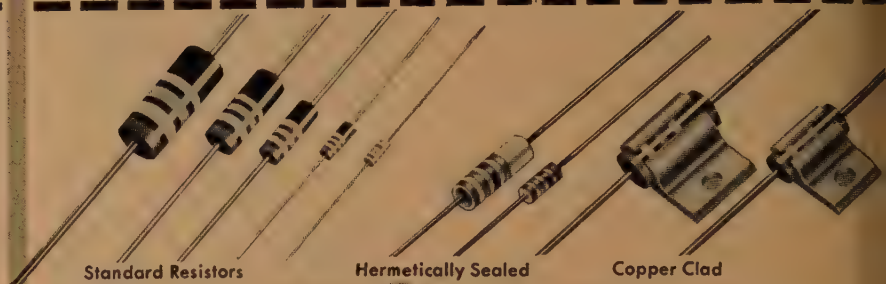
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HOT-MOLDED COMPOSITION FIXED RESISTORS

Standard resistors rated at 70° C. In 2, 1, 1/2, 1/4, & 1/10 watt ratings. Hermetically sealed units encased in ceramic tubes. In 1 and 1/8 watt ratings. Copper clad units mount on metal panel. Rated 3 and 4 watts, 70° C; or 4 and 5 watts, 40° C. Values: 2.7 ohms to 22 megohms.



Standard Resistors

Hermetically Sealed

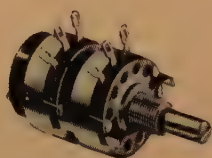
Copper Clad

HOT-MOLDED COMPOSITION VARIABLE RESISTORS

Industrial Type H rated 5 watts at 40° C. Operating life over 100,000 cycles. Type J rated 2 watts at 70° C. Type K rated 2 watts at 100° C—derate to zero at 150° C. Types J and K made in single, dual, & triple units with various shafts. Total values: 50 ohms to 5 megohms.



Industrial Type



Dual Unit with Switch



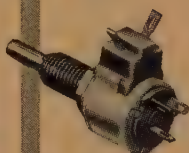
Single Unit



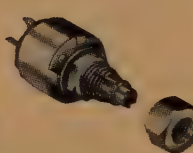
Triple Unit

SMALL HOT-MOLDED COMPOSITION VARIABLE RESISTORS

Type G rated 1/2 watt. Diameter 1/2". Made with plain or lock bushing, also with line switch. Type F for printed circuits rated 1/4 watt. Diameter 1/2". Type T for hearing aids rated 1/2 watt. Molded cover serves as actuator. All ratings at 70° C. Total values: 100 ohms to 5 meg.



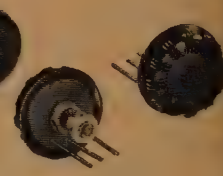
Type G with Switch



Type G with Lock Nut



Type F



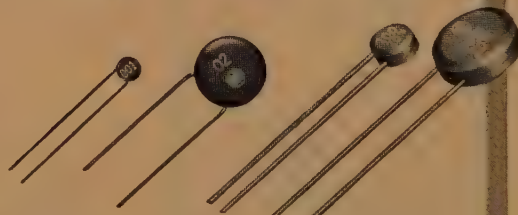
Type T



Feed-thru & Stand-off



Bare Disc Type



General Purpose, Stable, TC

Ceramic Encased

CERAMIC CAPACITORS

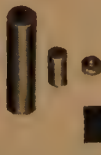
Feed-thru and stand-off units exhibit no parallel resonance effects up to 1000 mcs. Solder tab or screw mounting. Values: 4.7 to 1000 mmf. Disc units made in GP (no run-down on leads), stable, and TC types. Ceramic encased rated to 150° C. Values: 10 mmf to 0.02 mf.

FERRITE CORES

Available in various shapes and sizes, including new lightweight flared yoke. Uniform magnetic characteristics and physical dimensions for black and white, color TV, and general applications. Class WO-1 for deflection yokes and class WO-3 for flyback transformers.



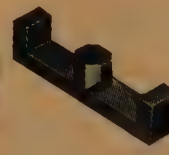
Torroids



QR Cores



Flared Yoke



E Cores

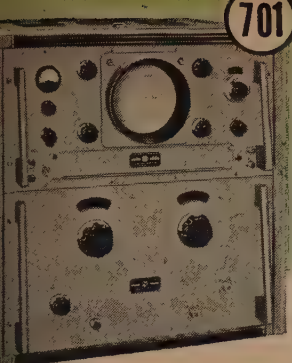


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701

BROADBAND SPECTRUM ANALYZER

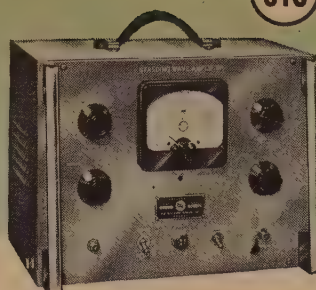
Type L701A: 950 to 2000 Mc/s (Fund.)
 Type S701A: 1900 to 4000 Mc/s (Fund.)
 Direct Reading: One Knob Freq. Control
 Select IF: 7 Kc and 50 Kc
 Sweep Width: 50 Mc



771

SIGNAL SOURCES

Type L771A: 950 to 2000 Mc/s
 Type S771A: 1900 to 4000 Mc/s
 Output Power: 50 mw (average)
 Direct Reading Frequency Dial: 1%
 Internal Modulation: Pulsed, Square Wave, C.W.
 Integral RF Level Set Attenuator



810

STANDING WAVE AMPLIFIER

VSWR Ranges: 1-3, 3-10, 10-30, 30-100
 Modulation: 1000 cps and 300-4000 cps
 Sensitivity: 0.1 μ volts (max.)
 Output: Cathode Follower, 10 volts (max.)
 Bolometer Bias: 3.5 to 9.0 ma (front panel control and meter)
 Bolometer protection circuit prevents transient burnout



815

UNIVERSAL KLYSTRON POWER SUPPLY

Direct Reading Voltage Dials: $\pm 1\%$
 Beam: 200 to 2000V and 1800 to 3600V (250 watts, max.)
 Ripple: 3mv RMS (max.); Regulation: 0.03%
 Reflector: 0 to 1000V (negative)
 Control Grid: 0 to +150V and 0 to -300V (0 to 5 ma)
 Internal Modulation: Pulsed, square wave, saw tooth and sine wave



MICROWAVE and ELECTRONIC TEST EQUIPMENT

KLYSTRON POWER SUPPLY

Beam: 300 to 500 Volts (65 ma)
 Beam: 7 mv RMS (max.)
 Regulation: 1% (105 to 125V)
 Reflector: 0 to 600 Volts (10 μ a, max.)
 Beam: 5 mv RMS (max.); Diode Protected
 Internal Modulation: Square wave (250 to 500 cps), saw tooth (40 to 120 cps)



816

UNIVERSAL POWER METER

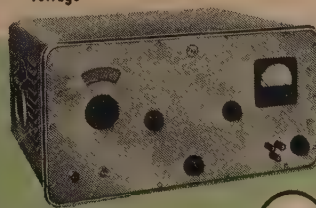
Power Ranges: 0.1, 1, 10, 100 mw Full Scale; -10, 0, +10, +20, dbm Full Scale
 Accuracy: $\pm 5\%$ of Full Scale
 Bolometer Bias: 3 to 10 ma and 10 to 40 ma
 Bolometer Temperature Coefficient: Positive or Negative
 Bolometer Resistance Ranges: 50, 100, 150, 200, 250 ohms, $\pm 10\%$



830

AUDIO FUNCTION GENERATOR

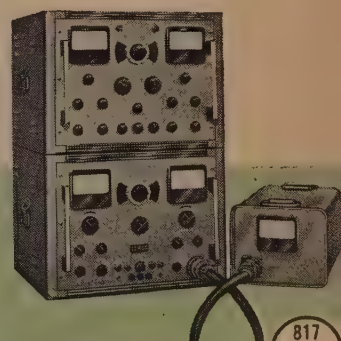
Frequency Range: 5 to 50,000 cps (in 4 ranges)
 Frequency Response: Constant within ± 0.2 db (all ranges)
 Frequency Calibration: $\pm 2\%$ of Dial and Range Switch
 Output Shapes: Sine wave, square wave, triangular wave
 Output Meter: Voltage, $\pm 3\%$ of Full Scale
 Hum Level: 60 db below maximum output voltage



850

SWEPT UNIVERSAL B.W.O. POWER SUPPLY

Coming Soon!



818 BWO

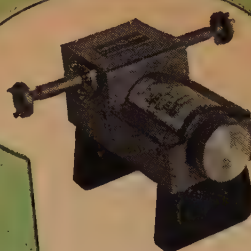
103



**PRECISION
SLOTTED
SECTIONS**

FXR

164



**PRECISION MM
ATTENUATOR**

FXR

200



**TUNABLE
PROBE**

FXR



**DETECTOR
MOUNTS**

FXR

FXR

WAVEGUIDE TEST EQUIPMENT

INSTRUMENT	SIZE	"L"	"R"	"S"	"H"	"C"	"W"	"X"	"Y"	"K"	"U"	"Q"	"M"	"E"	
		6 1/2"x3 1/4"	4.460"x 2.310"	3"x1 1/2"	2"x1"	1 1/2"x3/4"	1 1/4"x3/4"	1"x1/2"	0.622"x 0.311" ID	0.420"x 0.170" ID	0.280"x 0.140" ID	0.224"x 0.112" ID	0.148"x 0.074" ID	0.122"x 0.061" ID	
	Freq. Range	1.12-1.70 kmc/sec	1.70-2.60 kmc/sec	2.60-3.95 kmc/sec	3.95-5.85 kmc/sec	5.85-8.20 kmc/sec	7.05-10.00 kmc/sec	8.20-12.40 kmc/sec	12.40-18.00 kmc/sec	18.00-26.50 kmc/sec	26.50-40.00 kmc/sec	33.00-50.00 kmc/sec	50.00-75.00 kmc/sec	60.00-90.00 kmc/sec	
SLOTTED SECTIONS		L101A	R101A	S101A	H101A	C101A	W101A	X101A	Y102A	K102A, F	U102A, F	Q103A	M103A	E103A	
FLAP ATTENUATORS		L150B	R150B	S151A	H151A	C151A	W151A	X151A	Y151A	K151A, F	U151A, F	Q151A	M151A	E151A	
PRECISION ATTENUATORS		L160B		S161A	H161A	C161A	W161A	X161A	Y161A	K164A	U164A	Q164A	M164A	E164A	
FIXED ATTENUATORS		L168A, B, C, D, E		S168A, B, C, D, E	H168A, B, C, D, E	C168A, B, C, D, E	W168A, B, C, D, E	X168A, B, C, D, E	Y168A, B, C, D, E	[A-3db B-6db]	C-10db D-20db	E-30db			
DETECTOR MOUNTS	Tunable								Y205B	K205B, F	U205B, F				
(crystal, bolometer)											U206B, F	Q206B	M206B	E206B	
	Broadband			S207A	H207A	C207A	W207A	X207A							
	Fixed-Tuned							X211A	Y212A	K212A, F	U212A, F				
THERMISTOR MOUNTS		L216A		S216A	H216A	C216A	W216A	X216A	Y216A	K216A	U216A				
	Slide Screw	L310A	R310A	S311A	H311A	C311A	W311A	X311A	Y311A						
TUNERS	E/H			S312A	H312A	C312A	W312A	X312A	Y312B	K312B, F	U312B, F	Q312B	M312B	E312B	
	Precision					C402A		X402A							
FREQUENCY METERS (direct reading)	Reaction	N410A coaxial (1.00 to 4.00 kmc/sec)				H410A	C410A	W410A	X410A	Y410A	K410A, F	U410A, F	Q410X (micrometer)	M410X (micrometer)	E410X (micrometer)
	Transmission							X411A							
TERMINATIONS	Fixed	L501A	R501A	S501B	H501B	C501B	W501B	X501B	Y501B	K501A, F	U501A, F	Q501A	M501A	E501A	
	Sliding			S502A,	H502A	C502A	W502A	X502A	Y502A	K502A, F	U502A, F				
STANDARD MISMATCHES				S510A, B, C, D, E	H510A, B, C, D, E	C510A, B, C, D, E	W510A, B, C, D, E	X510A, B, C, D, E	Y510A, B, C, D, E	K510A, B, C, D, E	U510A, B, C, D, E	[A-1.00 B-1.05]	C-1.10 D-1.20	E-1.30	
ADAPTERS (waveguide to coax)		L600B	R600B	S601B	H601B	C601B	W601B	X601B							
DIRECTIONAL COUPLERS				S610A, B, C, D	H610A, B, C, D	C610A, B, C, D	W610A, B, C, D	X610A, B, C, D	Y610A, B, C, D	K610A, B, C, D	U610A, B, C, D		M610A, B, C, D	[A-3db C-10db B-6db D-20db]	
	Series	L620A	R620A	S620A	H620A	C620A	W620A	X620A	Y620A	K620A	U620A	Q620A	M620A	E620A	
WAVEGUIDE TEES	Shunt	L621A	R621A	S621A	H621A	C621A	W621A	X621A	Y621A	K621A	U621A	Q621A	M621A	E621A	
	Hybrid	L622A	R622A	S622A	H622A	C622A	W622A	X622A	Y622A	K622A	U622A	Q622A	M622A	E622A	
WAVEGUIDE BENDS	90° E-Plane	L623B		S623B	H623B	C623B	W623B	X623B	Y623B	K623B	U623B	Q623B	M623B	E623B	
	90° H-Plane	L624B		S624B	H624B	C624B	W624B	X624B	Y624B	K624B	U624B	Q624B	M624B	E624B	
PRECISION SLIDING SHORTS		L630A		S630A	H630A	C630A	W630A	X630A	Y630B	K630B	U630B	Q630B	M630B	E630B	
STANDARD GAIN HORNS		L638A	R638A	S638A	H638A	C638A	W638A	X638A	Y638A	K638A	U638A	Q638A	M638A	E638A	
SHIELDED TUBE MOUNTS					H760A		W760A	X760A			Z762B (unshielded)				
TRANSMISSION LINE STANDS		Z911A		Z910A	Z910A	Z910A	Z910A	Z910A	Z910B	Z910B	Z910B	Z910C	Z910C	Z910C	
		Z912L		Z912S	Z912HC	Z912HC	Z912W	Z912X	Z912Y	Z912KU	Z912KU				
FLANGE SCREWS		Z913L		Z913S	Z913HC	Z913HC	Z913W	Z913X	Z913Y	Z913KU	Z913KU				
										Z914K	Z914U	Z914Q	Z914M	Z914E	

Waveguide flanges also available

Bi-directional couplers available on special order

FXR

COAXIAL TEST EQUIPMENT*

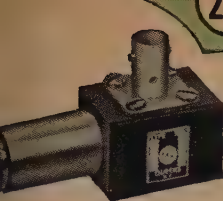
FREQUENCY IN KILOGACYCLES PER SECOND

INSTRUMENT	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00
Slotted Sections		N101A**						N101B**				
Slotted Sections (3/8")		V101A, V101B										
Cut-off Attenuators		N170A							X170A			
Tunable Probe						B200A**						
Detector Mounts (crystals, bolometer)						N200A**						
						N210A, B (N213B crystal supplied)						
Thermistor Mount					N215A (Z215L thermistor supplied); N217A (temp. compensated)							
Double Stub Tuner					N300A							
Frequency Meter		N410A (direct reading)										
Adapter (3/8" to 7/8")		N605A, B, C, D										
Oscillator					N626A (variable)							
Oscillator Cavity		N750A										
Klystron Tube Mount						N761A** (cables available)						

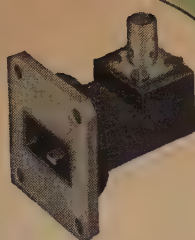
*All items are 3/8" coaxial components unless otherwise noted

**Accessories: N101A, B—"TYPE N" and "TYPE C" ADAPTER-CONNECTORS

B200A Z200M BARRETT-ADAPTER RING
N200A N200N R-F OUTPUT ADAPTER



**BROADBAND
COAXIAL
THERMISTOR
MOUNT**



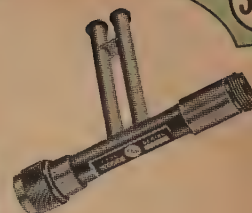
FxR

**BROADBAND
THERMISTOR
MOUNTS**



FxR

**CRYSTAL-CASE
BOLOMETERS**



FxR

**DOUBLE
STUB
TUNERS**



311

**SLIDE SCREW
TUNERS
E/H TUNERS**



402

FxR

**PRECISION
DIRECT READING
FREQUENCY
METERS**



410

FxR

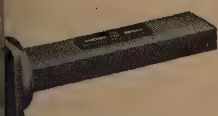
**COAXIAL
DIRECT READING
FREQUENCY
METERS**



41

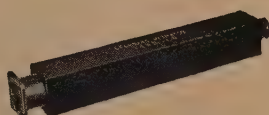
FxR

**WAVEGUIDE
DIRECT READING
FREQUENCY
METERS**



501

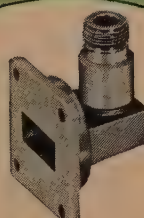
TERMINATIONS



510

FxR

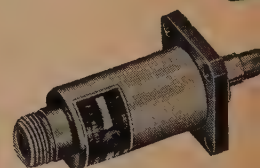
**STANDARD
MISMATCHES**



601

FxR

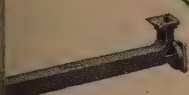
**WAVEGUIDE-
TO-COAX
ADAPTERS**



60

FxR

**COAX-TO-COAX
ADAPTERS**



610

**PRECISION
MULTI-HOLE
DIRECTIONAL
COUPLERS**



**620
621**

FxR

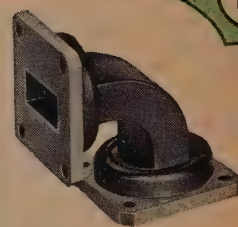
**SERIES AND
SHUNT TEES**



622

FxR

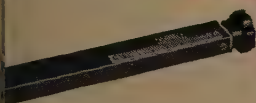
**HYBRID
TEES**



62

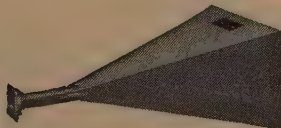
FxR

**90° WAVEGUIDE
BENDS**



630

**PRECISION
SLIDING
SHORTS**



638

FxR

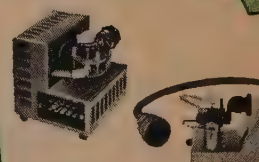
**STANDARD
GAIN
HORNS**



760

FxR

**SHIELDED
TUBE
MOUNT**



**70
71**

FxR

**KLYSTRON
TUBE
MOUNTS**

CUSTOM MODULATORS

from STANDARD DESIGNS...

FXR High-Power Pulse Modulators are custom-built to meet the specific requirements of each application through the use of FXR standard designs, developed by our skilled modulator engineering group. Our staff of experienced application engineers cannot be surpassed in the close integration of the most recent engineering developments with packaged design and standard procedures. You benefit, with a precision instrument at economical cost.

FXR's competent and efficient research, design and development staff, augmented by ultra-modern manufacturing facilities capable of production-quantity fabrication welcomes the opportunity to aid you in the design and construction of the most intricate pulse modulators and high-voltage power supplies.

Send for the "Preliminary Questionnaire" to assist you in planning the design of your next High-Power Pulse Modulator!

High Power Modulator Type No.	Power (peak megawatts)	Voltage (peak kilovolts)	Current (peak plate-amperes)	Impedance (output-ohms)	Duty Cycle (maximum)	Pulse Shape (μsec/pps)	Input 60 CPS (Ø/volts)	Tubes Operated
Z820A	1.0	33	33	1,000	.001	0.5/2000 2.5/400	1/190-250	4J50, QK-349 RK-6249
Z821A	14.0	90	160	560	.001	2.0/200-500	3/440-550	QK-338
Z822A	0.2	20	10	3,330	.018	10/1200-1800	3/440	SAL 39 (GL-6625)
Z823A	0.042	12.7	3.3	3,330	.064	coded/300	3/440	SAL 39
Z824A	0.625	25	25	1,000	.001 at 0.5/2000	1.0/1000 2.0/280 5.0/100	1/190-250	QK-349 at reduced power
Z825A	1.6	40	40	1,000	.001 at 0.5/2000	1.0/1000 2.5/400	1/190-250	WE-5780

Modulator Loads and Exhaust Ovens are also available.



X845A

FXR's MICROWAVE TRAINING KIT

FXR presents a complete packaged training program, the first in the industry specifically designed to teach the fundamentals of microwave techniques. This field-tested FXR Microwave Training Kit consists of a complete receiver, transmitter, and accessory group in a convenient carrying-case. Text material, including instructor's demonstration

notes with extensive student laboratory exercises, are furnished. By interchanging the accessories, the student learns fundamentals of propagation and the method effects of such phenomena as shielding, polarization, reflection, focusing and bending of microwaves.

The Microwave Training Kit, an FXR exclusive, is designed for students to take numerical data and learn the methods and techniques of microwave measurements. This simple, efficient training program provides the student with the foundation of practical knowledge and experience necessary to his work in the microwave field.

Data subject to change without notice. Prices on application.



Electronics & X-Ray Division

F-R MACHINE WORKS, Inc.

28-12 Borough Place, Woodside 77, N. Y.

ASTORIA 8-2800

REPRESENTATIVES

Szucs International Corporation
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Whitehall 4-7959
Cable—Sucinterco, New York

KaDeL Sales Assoc.
5875 N. Lincoln Avenue
Chicago 45, Illinois
Longbeach 1-3042

Hytronic Measurements Inc.
1295 S. Bannock
Denver 23, Colorado
PEARL 3-3701

J. C. Van Groos
Post Office Box
Woodland Hills, Ca.
Diamond 0-31



Write TODAY for new complete line of Precision Microwave Test Equipment

ELECTRICAL • ELECTRONIC WIRE • CABLE INSULATING TUBING • IDENTIFICATION MARKERS

WIRE

HOOK-UP WIRE: Turbotherm plastic insulated wires manufactured by William Brand and Company are normally supplied uncovered. They can be furnished with textile overbraids, with extruded vinyl or nylon jackets, and with braided or spiral copper shields. Color coding is in accordance with RETMA or MIL-STD-104 requirements. One, two or three spiral stripes can be applied over base colors where necessary for positive circuit identification. Turbotherm wires are resistant to the effects of water, oils, aircraft engine fuels, hydraulic fluids ethylene glycol, dilute acids and alkalis. They remain flexible over a wide range of operating temperatures, have low surface leakage and permanent color retention.

Several types of hook-up wires are available to meet different requirements and specifications:

- A. Underwriters' Laboratories Approved for 80°, 90° and 105° C at 300, 600 and 1000 volt operation.
- B. C. S. A. Approved appliance wires for 80° and 90°C operation; radio and electronic wiring (types TR-64, TR-32, TRB-64 and TRB-32).
- C. MIL-W-76A — Types LW, MW, and HW for 300, 1000 and 2500 volt operation respectively at 80°C.
JAN-C-76 — Types WL, SRIR and SRHV for 600, 1000 and 2500 volts respectively at 80°C.
MIL-W-16878B — Types B, C and D for 600, 1000 and 3000 volts respectively at 100°C. Type F, a silicone rubber insulated wire available with or without glass overbraids for operation at 200°C.
- D. Turbo Instrument Wire: a thin-walled uncovered wire for use in low current, low voltage instruments such as high accuracy indicators, meters and servo-mechanisms. Turbotherm 80

instrument wire is recommended where a high value of insulation resistance is required; Turbofans 105 instrument wire is recommended where varnish impregnation and high temperatures are encountered.

- E. Turbo Miniaturization Wire: a thin-walled plastic insulated wire with nylon jacket, specifically designed for equipment operating at temperatures from -55°C to +105°C. Ideal for use in miniaturized equipment both as hook-up wire and leads for transformers, chokes and other components where space is at a premium and operating temperatures are high. Insulation resistance values exceed 1000 volts per mil and dielectric strength exceeds 900 volts per mil. This wire is recommended for potting operations and varnish dipping and baking.
- F. High Voltage Leads: Two types are presently manufactured; an unjacketed flame-retardant polyethylene insulated wire, U/L approved for 10,000 and 20,000 volts D.C., and a vinyl jacketed polyethylene type made to individual specification.

CABLES

MULTI-CONDUCTOR CABLES: Precisely made to specification from any of the conductor types above, but including also, where required, coaxial cables. These cables can be furnished with exact positioning within the cable of individual coaxials, twisted pairs, triples or groups. Constructions are available using fillers, tapes, wraps, shields and jackets either over the entire cable or any portion of the cable.

TURBO TUBING AND SLEEVINGS

The many varieties of quality controlled, electrical insulating tubing manufactured by William Brand and Company fall into two general categories: coated tubings and extruded plastic tubings. Within each of these categories many types exist, each engineered to do a specific job.

- A. COATED TUBING: All coated tubings are available in standard AWG sizes from #20 to #0 inclusive and fractional sizes up to 1½" I.D. Generally stocked in Black, these tubings are also available in Brown, Red, Orange, Yellow, Green and Blue. Tubings are supplied in five standard grades meeting applicable ASTM, NEMA and MIL specifications as shown below.

Grade Designation	Average Dielectric Strength
A-1	7000 volts
B-1	4000 volts
C-1	2500 volts
C-2	1500 volts
C-3	No dielectric guarantee

- 1. Class A Tubing: An excellent general purpose tubing with smooth inner surfaces to facilitate snaking and assembly. Turbo Varnished Tubing is a cotton or rayon braid impregnated with organic varnishes.
- 2. Class B Tubing: Turbotuf Tubing . . . a vinyl coated glass tubing with exceptional flexibility, abrasion resistance, dielectric properties and good heat endurance characteristics. Turbotuf is used extensively in electronic equipment as insulation over bare leads. Furnished in two grades: Turbotuf-8 and Turbotuf-4 with minimum dielectric strengths of 8,000 volts and 4,000 volts respectively.
- 3. Class H Tubing: The trend toward miniaturization has intensified heat problems within electronic apparatus and has created serious problems in soldering in close quarters without injury to conventional insulations. Turbosil silicone var-

nished glass tubing and Turbo 117 silicone rubber coated glass tubing have been used successfully to overcome these difficulties. These tubings retain their physical and electrical properties at temperatures of from -80°F to +500°F. Turbosil has great physical toughness and is abrasion and peel resistant. Turbo 117 is extremely flexible and retains its dielectric properties under severe mechanical stress. Both are chemically inert and fungus resistant.

- B. EXTRUDED PLASTIC TUBING: The various formulations of vinyl plastic tubings have been established to meet the wide range of Underwriters' Laboratories or military specification requirements. Tubings are available in standard AWG sizes #24 to #0 inclusive and in fractional sizes up to 2" I.D. Special sizes and wall thicknesses can be supplied to meet specific requirements. While generally stocked in Black and Transparent, all RETMA colors are available.
- 1. High Temperature: Turbotherm 105 and Turbofans 105 are Underwriters' Laboratories approved for continuous operation at 105°C. Both combine high dielectric strength with optimum physical properties at elevated temperatures. Turbofans 105, especially formulated to withstand potting and baking temperatures, will also meet the requirements of MIL-I-631B, Grade c.
- 2. General Purpose: Two types are available: Turbolex 85 recommended for applications where moderate heat may be encountered with occasional exposure to oil. It is adequate for most low temperature work. Turbolex 76, meeting the MIL-I-631B requirements for Grade a tubing is optically clear when unpigmented, and is fungus resistant.

COAXIAL CABLE

TURBO "RG" TYPE TRANSMISSION LINE CABLES are fabricated in exact accordance with the military specifications for this type of product. Continuous quality control testing during every phase of the manufacturing process insures a final product which will pass all requirements with ample safety margins.

TURBO "RG" TYPE TRANSMISSION LINES have high dielectric and high impulse strength, high resistance to corona cutting and low power loss. The typical cables are of standard design construction. The "A/U", "B/U" and "C/U" types are covered with low temperature type IIA non-contaminating vinyl jackets, as specified in JAN-C-17A Amendment 2 and MIL-C-17B. Others can be manufactured in accordance with this specification or in accordance with individual or special requirements.

TURBO IDENTIFICATION MARKERS

Turbo Identification Markers are manufactured from Turbo Varnished Tubing and Turbo Extruded Plastic Tubing of all types. This product will meet applicable Army-Navy and Air Force specifications. Their tubular form insures positive, permanent identification once applied and eliminates time-consuming, injurious crimping operations and the flammability of paper and similar devices.

Turbo Identification Markers are available in all standard sizes from #14 to 1½" I.D. The extruded plastic type can also be furnished in special non-standard sizes. Markers are normally furnished in lengths of ¾" to 4" inclusive, but longer lengths can be supplied on request.

WILLIAM BRAND & COMPANY, INC. • Willimantic, Connecticut

Northern Radio FREQUENCY SHIFT TERMINAL EQUIPMENT

FREQUENCY and SHIFT MONITOR SYSTEM

This system consists of a Type 106 Frequency and Shift Monitor and a Type 127 Frequency Meter. It is designed as a secondary standard to monitor the frequency and amount of shift of transmitter carrier outputs. It is particularly intended to measure the frequency shift of a mark and space (FS) signal either when setting up for traffic or under normal keying conditions.

The Monitor's stability is better than 2 cycles per megacycle over an ambient temperature range of 0-50° C—using crystals having a temperature coefficient of only 3 parts/million/degree C. Range is 2.5-30 mc with 10 crystal-controlled frequencies (separate panel trimmers for each); use of external oscillator also provided for. Frequency Shift range is 10-10,000 cps. Less than 100 millivolts RF input needed for 2 volts audio output.

The Frequency Meter is specially designed with selectable normal and fast-acting damping factors, permitting frequency measurements of signals while keying. Its accuracy is 2% of full scale for the ranges 0-200, 500, 2000, 5000, 20,000 cps.



METER: TYPE 127, MODEL 2
MONITOR: TYPE 106, MODEL 4



TYPICAL
TRANSMITTER
TERMINAL
for TWINPLEX
OPERATION



TYPE 105, MODEL 6

FREQUENCY SHIFT KEYS

Supersedes and replaces its leader predecessor, Type 105 Model 4.

- Highest stability achieved by any FS Keyer.
- Increased frequency range 1.0 to 7.0 mc.
- Pre-selection of proper FS for any particular transmitter frequency multiplication.
- Permits use with external oscillator without need of adapters.
- Improved accessibility for even easier maintenance.

- Direct-reading frequency calibration of shift from 0 to 1000 cps.
- FS dial adjusts "Mark" and "Space" frequencies equally above and below the carrier position.
- Direct-reading frequency calibration of mixer and output tuning dials from 1.0 to 7.0 mc.
- Direct reading calibration of output frequency vernier ± 600 cps.
- Pulse-shaping circuit permits operation within assigned band-width with no adjacent channel radiation.
- Linear carrier shift up to 1400 cps for Fax operations.



TWINPLEX COMBINER TYPE 177 MODEL 1

For twinplex operation, the transmitting terminal includes a Twinplex Combiner Type 177 Model 1.

The Twinplex communication system makes possible a 2-channel radio circuit whereby 2 non-synchronous or synchronous telegraph transmissions modulate a single radio carrier wave causing the carrier to assume one of four specific frequencies with 400 cps separations.

The Combiner converts the four possible conditions of two telegraph signals (M1-M2, M1-S2, S1-M2, S1-S2) respectively into one of four voltages related in a 0-1-2-3 manner. The Combiner output voltage modulates the Frequency Shift Keyer.

The two telegraph channels provide the same operational flexibility as that of two separate single channel FS systems. One can, for example, simultaneously use channel #1 on 60 wpm teletype and channel #2 on high-speed Morse or Time-Division Multiplex.

TECHNICAL DATA:

Keying Inputs: 1. Contacts; 2. DC current pulses, positive, negative, or polar; 3. DC voltage pulses, positive, negative, or polar.
Input Level: 1. DC Voltages: ± 10 volts minimum; 2. DC Current: 45 ma. minimum.
Keying Speed: 240 Words per minute maximum.
Output Impedance: 10,000 ohms.
Keying Input Impedance: 1. DC Voltage: 100,000 ohms. 2. DC Current: 220 ohms.
Output Level: Neutral: 0 to 25 volts; Polar: +6 to -6 volts

Output Voltage Conditions: Four output voltages are to be proportioned as follows assuming linear F.S. Keyer characteristic.
Input: M1 M2, M1 S2, S1 M2, S1 S2; **Output** 0, 1, 2, 3.
Individual level adjustments provided.
Power Requirements: 110/220 volts, 50/60 cycles. Approximately 50 watts. Connections at rear of chassis.
Dimensions: 3 1/2" High x 19" Wide x 10" Deep.

VARIABLE MASTER OSCILLATOR TYPE 173 MODEL 1

The Northern Radio Company Variable Master Oscillator provides a continuously variable source of radio frequency energy with a stability of approximately 1 cycle per megacycle in the range of 2 to 4 megacycles. It may be used as the basic control oscillator for diversity receivers, high frequency transmitters and other communications devices, or as a laboratory standard for test and measurement functions.

Its ease of operation and direct reading of frequency make it an outstandingly useful device where precise frequency control must be maintained by completely unskilled personnel. No curves, interpolations or calculations of any kind are required in its use. Frequency is set approximately to the desired value by rotating the oscillator dial. The last three digits of the frequency automatically pull in to the valve pre-set on the switches and holds with an accuracy that exceeds that of most temperature-controlled crystal oscillators.

HIGH FREQUENCY OSCILLATOR

Output Frequency: 2—4 MC continuously variable.

Stability for any combination of temperature range from 0 to 50° C., and line voltage of 115 to 230 $\pm$ 10%: Approximately 1 cycle per megacycle.

Output level: 1/2 watt into 75 ohm load. Lever control on rear of chassis.

Readability: $\pm$ 2.5 cycles per second. Direct digital readout on mechanical and electronic counters.

Resetability: Absolute.

BEAT FREQUENCY OSCILLATOR

Output Frequency: 400—800 KC crystal controlled.

Output Level: 3.5 volts into 1000 ohm load. Level control on rear of chassis.

TIME BASE CRYSTAL OSCILLATOR

Output Frequency 100 KC

Stability for 0 to 50° C and $\pm$ 10% Line Voltage change: 0.2 part per million for any 12 hour period; 1.0 part per million for thirty days.

Output Level: Approximately 2 volts.

Output Impedance: Approximately 100,000 ohms.

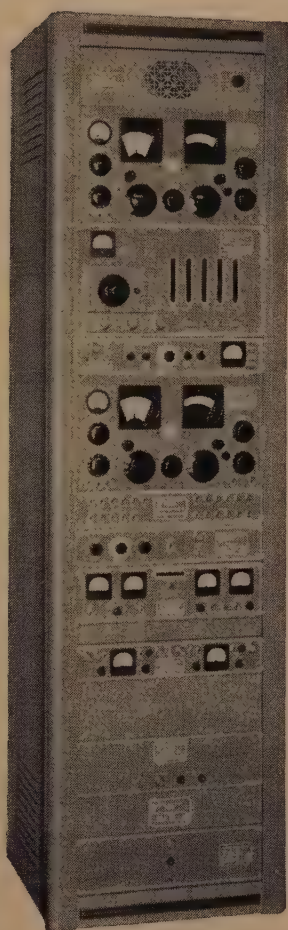


**TWINPLEX CONVERTER
TYPE 178 MODEL 1**

This Twinplex communication system makes possible a 2-channel radio circuit whereby 2 non-synchronous or synchronous telegraph transmissions modulate a single radio carrier wave by causing the carrier to assume one of four specific frequencies with 400 cps separations.

The receiving equipment consists of the Twinplex Converter Type 178 Model 1 and a single or diversity receiver such as the Northern Radio Type 110 Dual Diversity Receiving System. The Converter demodulates and separates the four audio tones from the radio receiver(s) into two channels each carrying the originally transmitted intelligence. The Twinplex Converter replaces the standard FS Converter for this purpose.

The two telegraph channels provide the same operational flexibility as that of two separate single channel FS systems. One can, for example, simultaneously use channel #1 or 60 wpm teletype and channel #2 on high-speed Morse or Time-Division Multiplex. It further permits the reception of channel #1 signals on all standard FS converters (tunable to 400 cps shift) without need for a Twinplex Converter: this is valuable for "Forked Circuit Operation" where the intelligence of channel #1 is intended for pick-up by other receiving stations which are not equipped for Twinplex Reception in addition to the main receiving stations which are so equipped. Reception of channel #2 (or of both channels) requires the receiving end to be equipped with a Twinplex Converter.

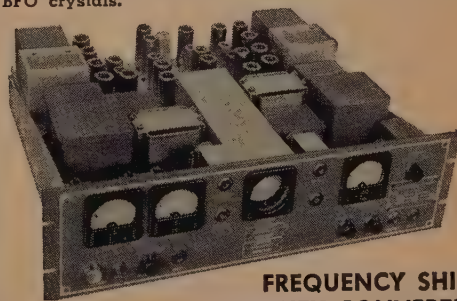


**TYPICAL RECEIVER
TERMINAL
for TWINPLEX
OPERATION**



**VARIABLE MASTER OSCILLATOR
TYPE 115, MODEL 1**

The Variable Master Oscillator Type 173 (above) may be replaced by this Variable Master Oscillator Type 115 Model 1 which is designed principally for use in diversity reception to supply variable or crystal HFO voltage to the receivers. Its variable frequency has a stability equivalent to that obtained by non-temperature-controlled crystal oscillators. It also provides 3 HFO crystals for operation of diversity receivers where fixed frequencies are required, and 2 BFO crystals.



**FREQUENCY SHIFT
DIVERSITY CONVERTER
TYPE 174, MODEL 1**

For use with either single-receiver frequency diversity systems or 2-receiver space diversity systems. By means of plug-in units, any reasonable number of channels is available between the frequencies of 425 and 3315 cps for either frequency or space diversity operation. For standard FS operation, the plug-in networks provide shift adjustments from 100 to 1000 cps shift.

Normal input Level: —40 to +10 VU (Zero VU = 1mW into 600 ohms). (Satisfactory operation on fades to —60 VU.) Limiter Recovery Time: Negligible for a 40 VU differential between Mark and Space frequencies.

Output: 65 ma into 2000 ohms floating (self-contained line battery).

Keying Speed: Maximum of 40 dot cycles with narrow band frequencies diversity. Up to 400 dot cycles with the wide band networks.

Monitor: 2-inch Cathode Ray tube
Input phone jack
2 input volume level indicators
1 output current indicator



Pace-Setters in Quality Communication Equipment

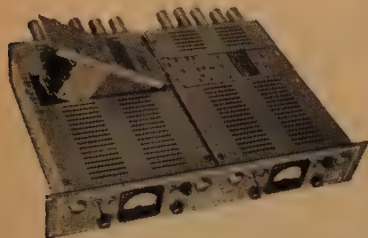
NORTHERN RADIO COMPANY, inc.

147 WEST 22nd ST., NEW YORK 11, NEW YORK

In Canada: Northern Radio Mfg. Co., Ltd., 1950 Bank St., Billings Bridge, Ottawa, Ontario.

MULTI-CHANNEL FREQUENCY SHIFT TONE TELEGRAPH SYSTEMS

These Multi-Channel Telegraph Systems are audio carrier systems capable of multiplexing such circuits as telephone lines, VHF, UHF, or radio frequency links—or practically any type circuit from which a two-wire audio circuit can be derived. Designed to meet any speed requirements, these systems are fully electronic, without relays or moving parts to wear. They can be used for high-speed printer, Morse or time division Multiplex circuits, as well as such application as Telemetering, Control Circuits and Servo-Mechanisms. Instantaneous and complete sending and channel control permits any binary code groups, either "Clear Text" or "Cryptographic," to be channelized without need for additional phasing or synchronizing equipment, while paralleling of channels will allow for transmission of other type codes, such as 3 element cable code. The completely independent operation of each channel, including its own power supply, localizes faults to one channel only, leaving other channels unaffected. Individual



DUAL FS TONE KEYS; TYPE 153 MODEL 3:

Keying Input. . . . Relay contacts, $\pm$ DC current or voltage pulses, neutral or polar.

Input Level. . . . DC voltage: $\pm$ 10 volts min. DC current: 45 ma min., $\pm$ or polar. Relay: contact rating 5 ma min.

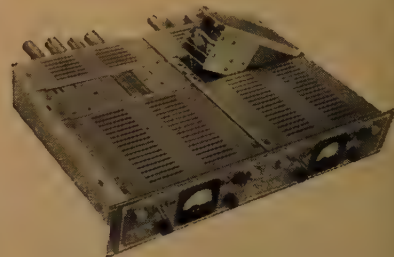
Keying input Z. . . . DC voltage: 100K ohms. DC current: 220 ohms.



TRANSMITTER

RECEIVER

channel separation filters are used at both transmitting and receiving ends. This arrangement allows for sending telegraph or control signals over a circuit carrying, simultaneously, other forms of intelligence; or for two-way communications on the same line. The audio frequency shift principle of transmission provides for high fidelity of signal reproduction over a wide range of signal levels as well as under severe noise or interference conditions. Circuit requirements of any speed, shift and center frequency can readily be met. The systems illustrated are for use on printer circuits up to 100 WPM channel capacity. The system arrangement is very flexible, permitting grouping of the basic units into various arrangements of Multiplex Systems. These systems can be made to accommodate a large variety of channel numbers and speeds to meet any individual requirements. The flexibility is further improved by the fact that the racks, power control units, and terminal connection panels are the same for both transmitting and receiving terminals.



DUAL FS TONE CONVERTER: TYPE 152 MODEL 3:

Input Z: 600 ohms, unbalanced.

Input Level: —40 dbm to 0 dbm.

Input Frequencies: 18 channels, 425-3315 cps, 170 cycle spacing.

Keying Speed: 45 dot cycles.

DUPLEX TELEGRAPH SYSTEM FOR MULTI-CHANNEL TONE EQUIPMENT

SEVEN NEW FEATURES in this system—simple 4-position switch selects from 12 possible duplex combinations; duplex operation between stations connected via carrier telegraph channels; all-electronic, without relays or moving parts; polar or neutral for either half duplex or full duplex; break-in now also possible for all half-duplex circuits; provided with positive feature to prevent space signal lock-out; includes individual line battery for each channel.

The Northern Radio Duplex Telegraph System consists of one each Dual Frequency Shift Tone Keyer, Type 153 Model 3; Dual Duplex Selector Panel, Type 200 Model 1; Dual Loop switch Panel, Type 200A Model 1; and Dual Frequency Shift Tone Converter, Type 152 Model 3.



DUAL
DUPLEX
SELECTOR
PANEL
Type 200
Model 1

The Dual Selector Panel provides 12 loop options, patching facilities for monitoring purposes and channel routing, including the possibility of patching-in another teleprinter loop circuit (T-junction). Any of the 12 loop options are available and may be selected for the Dual Loop Switch Panel by simple strapping arrangement. It has an individual line battery for each channel for greatest circuit flexibility. Battery and line fuses are also provided for maximum protection.



DUAL
LOOP
SWITCH
PANEL,
Type 200A
Model 1

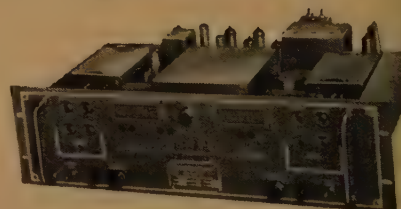
The Dual Loop Switch Panel rapidly selects half-duplex and/or full duplex mode of operation for any of the 4 standard loop options by front panel switching available from the 12 loop options in the Dual Duplex Selector Panel.



NEW! REGENERATIVE REPEATER

TYPE 207

MODEL 1



This new Regenerative Repeater—the most advanced in the industry—is designed for use in telecommunication circuits to re-shape and re-time distorted signals for local use or retransmission. Special provision has also been made for its use on half duplex where it will not only regenerate the ordinary teleprinter signals but also faithfully reproduce such special signals as "break" signals and "mark restoration" information. Outstanding features include: . . . maximum acceptable signal distortion: new circuitry accepts up to 47% mark or space distortion; "floating" input & output circuits; completely electronic output, no relays; greater timing circuit stability: time base derived from highly stabilized L-C oscillator; adaptable to any speed: low-pass filter & frequency-determining elements are plug-in units; completely self-contained: includes power supply & line battery.

TECHNICAL DATA

Input Keying Signal Requirements: (1) Neutral keying, positive or negative sense, (a) on-off 60 ma pulses, (b) on-off voltage pulses 10-100V into 100K ohms, (2) Polar keying, (3) Dry contact keying.

Frequency Stability of Time Base Generator: Less than 1 point range loss for $\pm$ 10% line voltage variation or $\pm$ 20° C ambient change from 25° C.

Sampling Time: Approximately 50 microseconds.

Output: Electronic tube outputs: (a) neutral 65 ma max. into 2K ohms, (b) polar 33 ma (max.) into 2K ohms.

Power Requirement: 125 watts approx: 110/220V, 50/60 cps.

Mounting: Standard 19" rack mounting, 5 1/4" panel.



Pace-Setters in Quality Communication Equipment

NORTHERN RADIO Co. inc.
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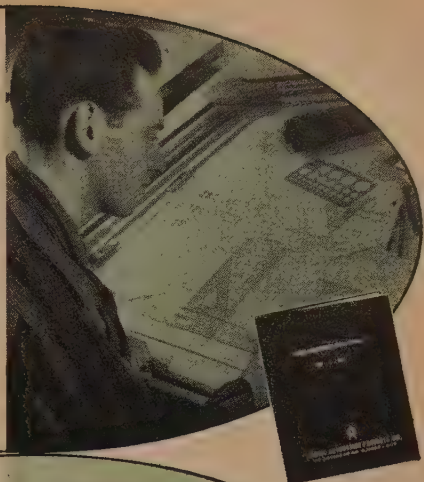


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Products, Inc.

CABLE SPECIFICATIONS

"Design Engineering Specification" Bulletin No. PAP-C-101. Comprehensive 19-page engineering manual describing materials, construction, design criteria, specification conformance, performance, identification, documentation and other important features determining correct cable for your specific application.



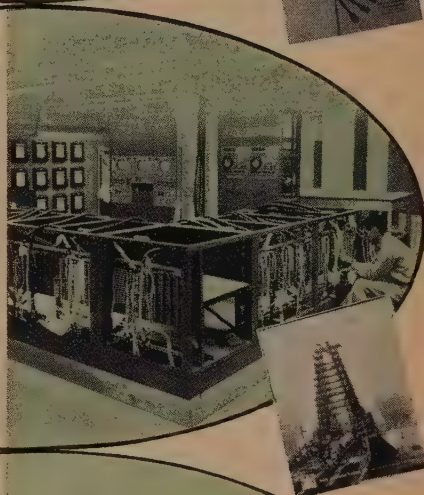
CABLE AS A COMPONENT

"Electronic Cable as a Systems Component" Bulletin No. 656. Generously illustrated pamphlet describes design and production of electronic cable in bulk and assemblies. Connectors and hardware; cable break-outs; environmental requirements; voltage rating, testing; cable procurement data — are some of the subjects covered in this bulletin.



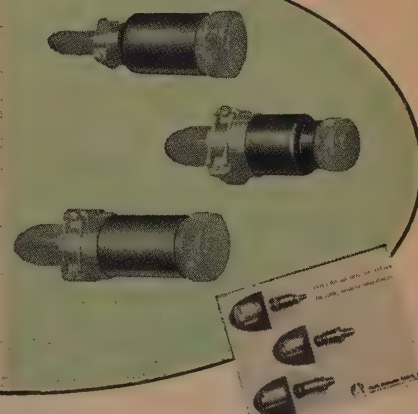
CABLE SYSTEMS

"Engineered Cable Systems" Bulletin 357. Illustrated brochure describing Pacific Automation Products' pioneering in the use of the Systems Concept to coordinate cable design with the development of complex electronic systems. Liaison engineering teams cooperating with systems design groups establish cable as integral part of system, supervising cable construction concurrently with development of other elements.

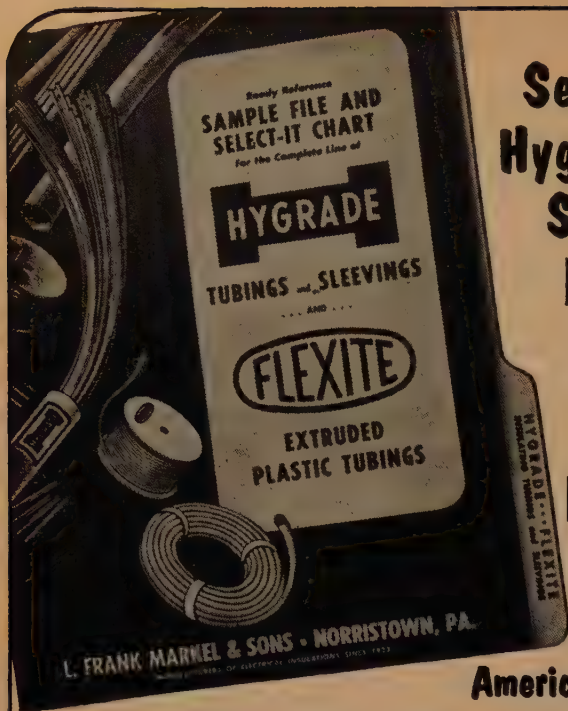


CABLE ACCESSORIES

"Extension and Adapter Sleeves for Cable/Connector Compatibility" Bulletin 257. Illustrated bulletin on aluminum adapters designed and manufactured by Pacific Automation Products, which for the first time provide a means of attaching any size AN connector to any size cable, with assured reliability.



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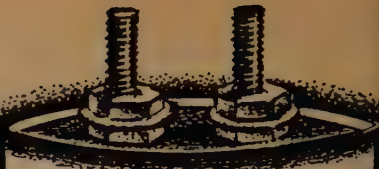
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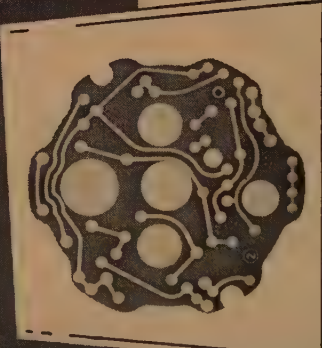
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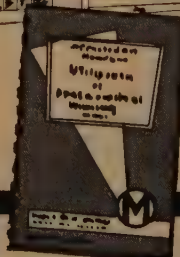
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SEMICONDUCTOR RECTIFIERS



Westinghouse silicon and germanium rectifier cells are characterized by long life, very good reliability, no detectable aging, and excellent mechanical stability. All devices are ruggedly designed to withstand a wide range of operating conditions. They are hermetically sealed to protect the junctions from atmospheric contamination. More power output is obtainable with Westinghouse semiconductors which means considerable reductions in space and weight.

302(N5051), 303(N5091)

The 302 and 303 silicon rectifying cells are used for medium and high power applications where d.c. current is required. The 302 diode is rated at 35 amperes, half wave, forward current with forced air cooling and mounted on a suitable heat dissipating plate. It is available in voltage classifications up to 500 (P. I. V.) peak inverse voltage. 303 is available in the same voltage classifications but is rated at 22 amperes forward current, half wave circuit. *Additional information:* 302, technical data 54-164, pg. 1-2; 303, technical data 54-163, pg. 3-4

304

The 304 is a silicon rectifying cell used for medium power application where d.c. current is required and space is a factor. It is rated at 12 amperes half wave, average forward current with forced air cooling and mounted on a suitable heat dissipating plate. It is available in voltage classifications up to 500 (P. I. V.) peak inverse voltage and also available in low leakage classification for Magamp application with the same voltage ratings. *Additional information:* technical data 54-163, pg. 1-2

305, 307, 308, 320, 1N1169

Low power silicon rectifying cells for applications such as magnetic amplifiers, computers, control circuits and power supplies. Available in voltages up to 600 P. I. V. The 1N1169 is for high voltage radio and TV applications. *Additional information:* technical data 54-161, page 1-2.

322(N5082), 319, 326

The 319, 322 and 326 are high power diodes of very rugged construction. These units are rated at 150 amperes average current, half wave with forced air cooling and mounted on a suitable heat dissipating plate. It is available in voltage classifications up to 500 (P. I. V.) peak inverse volts. Mounting versatility is achieved through the variety of case configurations. *Additional information:* technical data 54-167, pg. 1-2, 3-4, 5-6

WA-4051

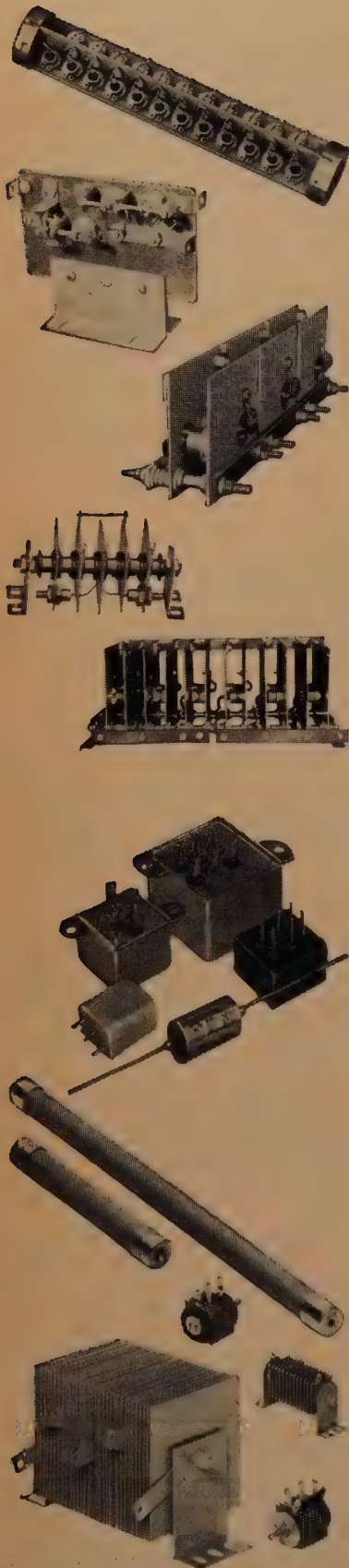
WA-4051 Semitron is a high current, low voltage germanium rectifying cell designed for special applications. The cell is liquid cooled and rated 90 volts P. I. V. and 250 amperes half wave average forward current.

100

A family of low power germanium PNP transistors designed for audio frequency applications, class A and class B amplifiers, switching, or general applications. It is capable of dissipating 150 milli-watts.

102

102 is a germanium power transistor designed for audio and switching applications. It is rated at collector voltage - 35 volts and collector current - 2 amperes. It has a very high, large signal current gain throughout the operating range up to 75° C.



SILICON BRIDGES

Silicon bridge assemblies are available in a variety of standard as well as special designs. The low power diodes are available in assemblies with $1\frac{1}{2}$ " copper plate. Special devices are mounted as shown in the picture on insulated fixtures used primarily for mounting where the current requirements are low but the voltage requirement is extremely high. It is not unreasonable to have an application for 25,000 volts to meet communication or precipitation requirements.

The medium power diodes are also available in the insulated plates, 2", 3", and 5" copper plates depending upon the space and electrical requirements of the customer. The medium power diodes bridge the gap between this high voltage, low amperage and high power devices. These high power devices have been assembled with currents up to 40,000 amperes. The higher power diode is mounted on 5" or 7" copper plates and

follows the fundamental rectifier circuits as designated in the AIEE standards.

Some of these typical rectifier circuits are: Single-phase half wave, single-phase full wave center tap, single-phase full wave bridge, single-phase or three phase half wave, three-phase full wave bridge, six-phase half wave, six-phase with interphase, six-phase full wave bridge, and six-phase full wave with interphase.

As an example of the variety of circuits in actual existence, the photos at left show units ranging up to a (12-1-1-B) six-phase full wave with interphase connection which has a rating of approximately 450 amperes at 400 peak inverse voltage.

It is a fundamental principle that multiples of any of these basic configurations can be used in series or parallel in order to achieve the voltage and current required for the particular application.

SELENIUM STACKS

Application: Listed below are a few applications for which selenium stacks are ideally suited:

Battery chargers—all types, industrial and automotive, telephone repeater stations—d-c power supplies, business machine power supplies, communication equipment—teletype, teletype, facsimile, radio transmitters and radar equipments, electroplating power supplies and control, general purpose d-c power supplies, variable voltage power supply units, circuit breaker closing and tripping, cathodic protection power supplies, airborne and ground power supplies, blocking, dynamic braking for a-c motors, magnetic brakes, clutches, pulleys, chucks, etc., electrostatic precipitation—high voltage d-c, d-c motor power supplies—synchronous motor excitation, arc welders.

Advantages: Long life; outstanding characteristic of the Westinghouse selenium cell is the low rate of forward aging—unmatched in the industry. This is the one characteristic of a selenium stack that assures many years of trouble-free service.

High temperature operation: Westinghouse inorganic barrier layer combined with high temperature alloy permits operation at cell temperatures above 75° C.

High efficiency: Maintains good efficiency over wide range of load at rated volts.

Uniformity: Uniform cell quality is maintained through precise quality control and engineering supervision of each process step, in a modern air-conditioned factory.

Maintenance eliminated: Selenium stacks are static devices with no moving parts, nothing to wear out.

Versatility: Cell sizes and stack combinations are available for a wide range of d-c voltages and currents.

Instantaneous d-c: Power flows instantly on application of a-c—no "warm-up" time required.

Easy installation: Lightweight, compact design simplifies handling and installation.

TYPE K SELENIUM RECTIFIERS Type K selenium rectifiers fill the need for versatile, low-cost, highly reliable rectifying elements for low and medium current applications. They are packaged in several different forms to meet the diverse requirements of military and commercial equipment. Cells for all units are made by the Westinghouse vacuum process, which assures the best possible characteristics of long life, low forward drop, and very low reverse current.

Advantages: Low reverse current: Particularly in the 15 to 30-volt range, reverse current is extremely low compared with that of most selenium power rectifiers.

Temperature stability: Electrical characteristics of type K selenium rectifiers are relatively constant over an ambient temperature range of -55° C to +85° C.

Minimum aging: Electrical characteristics of type K rectifiers are remarkably stable both in storage and in service.

Environmental protection: Each type of rectifier is available with various degrees of protection to meet environmental conditions.

Printed circuitry: Miniature rectifiers are designed for convenient application to printed circuit boards.

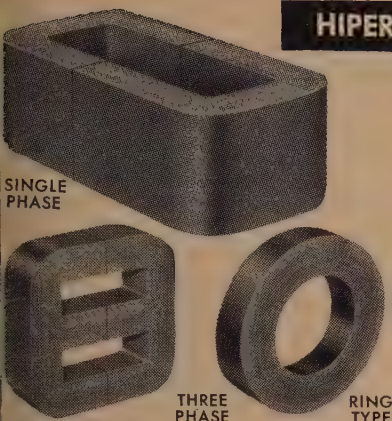
Proved in Magamp applications: Type K rectifiers have proved their dependability and trouble-free operation in thousands of Magamp and Cypak applications.

For additional information see descriptive bulletins 19-101 and 52-655



HIPERSIL CORES

Hipersil® Type C Cores



The Hipersil Type C core was developed and introduced 16 years ago by Westinghouse. Continual development since then has produced major improvements in magnetic quality toward lower core loss and higher permeability. These along with improvements in construction such as a lower loss etched butt joint and the recent grooved core construction insures better performance and transformer stability.

Available in 1, 2, 4, and 12 mil thicknesses of material for applications using frequencies of 60 cycles to several megacycles.

For additional information refer to descriptive bulletin 44-550.

Listed below are the cores normally carried in stock:

* Trademark.

4 mil					weight: pounds	gross area+:- sq. in.	mean length magnetic path: L _g
catalog number	strip width	build up	window width	window length			
H-115	3/8	1/4	3/8	1	0.080	0.094	3.433
H-250	1/2	1/4	3/8	1	0.107	0.125	3.433
H-126	3/8	5/16	3/8	1	0.106	0.117	3.623
H-235	3/8	1/4	3/8	1 3/16	0.088	0.094	3.808
H-251	1/2	5/16	7/16	1 3/16	0.160	0.156	4.123
H-252	5/8	5/16	7/16	1 3/16	0.200	0.196	4.123
H-114	1/2	1/4	1 1/2	1	0.124	0.125	3.683
H-2	3/4	3/16	1 1/2	1 1/8	0.130	0.141	3.733
H-1	1/2	1/4	1 1/2	1 1/8	0.122	0.125	3.933
H-3	3/4	1/4	1 1/2	1 1/8	0.183	0.188	3.933
H-138	1/2	1/2	1 1/2	1 1/8	0.293	0.250	4.713
H-38	1/4	1/4	1 1/2	1 1/16	0.067	0.063	4.288
H-39	3/8	1/4	1 1/2	1 1/16	0.100	0.094	4.308
H-40	1/2	1/4	1 1/2	1 1/16	0.134	0.125	4.308
H-41	5/8	1/4	1 1/2	1 1/16	0.167	0.156	4.308
H-42	3/4	1/4	1 1/2	1 1/16	0.201	0.188	4.308
H-253	5/8	3/8	1 1/2	1 1/16	0.273	0.234	4.698
H-254	3/4	3/8	1 1/2	1 1/16	0.328	0.281	4.698
H-5	1	3/4	1 1/2	1 1/8	0.291	0.250	4.683
H-7	1	3/8	1 1/2	1 1/16	0.483	0.375	5.198
H-6	3/4	1/2	1 1/2	1 1/16	0.520	0.375	5.588
H-8	1	1/2	1 1/2	1 1/16	0.694	0.500	5.588
H-9	5/8	1/4	5/8	1 1/16	0.196	0.156	5.058
H-11	1	5/16	5/8	1 1/16	0.361	0.281	5.158
H-44	1/2	5/16	5/8	1 1/16	0.204	0.156	5.248
H-45	5/8	5/16	5/8	1 1/16	0.254	0.196	5.248
H-48	1	5/16	5/8	1 1/16	0.406	0.313	5.248
H-12	1	1/2	5/8	1 1/16	0.724	0.500	5.838
H-10	7/8	5/8	5/8	1 1/16	0.846	0.547	6.228
H-13	1	5/8	5/8	1 1/16	0.966	0.625	6.228
H-14	1 1/8	5/16	5/8	1 1/16	0.479	0.352	5.498
H-17	1 1/4	3/8	5/8	1 1/16	0.722	0.469	6.198
H-15	1	5/8	5/8	1 1/16	1.082	0.625	6.978
H-16	1 1/8	5/8	5/8	1 1/16	1.219	0.703	6.978
H-18	1 1/4	5/8	5/8	1 1/16	1.353	0.781	6.978
H-49	3/8	3/8	3/4	1 1/16	0.225	0.141	6.448
H-54	1	3/8	3/4	1 1/16	0.599	0.375	6.448
H-56	1 1/4	3/8	3/4	1 1/16	0.751	0.469	6.448
H-20	1 1/4	5/16	3/4	2 1/16	0.668	0.391	6.891
H-19	1 1/8	3/4	3/4	2 1/16	1.736	0.844	8.271
H-23	1 1/2	3/4	3/4	2 1/16	2.309	1.125	8.271
H-61	1	7/16	7/8	2 1/4	0.805	0.438	7.416
H-63	1 1/4	7/16	7/8	2 1/4	1.007	0.548	7.416
H-64	1 3/8	7/16	7/8	2 1/4	1.106	0.603	7.416
H-27	1 1/2	3/8	1 1/2	2 1/2	1.096	0.562	7.841
H-26	1 1/4	1/2	1 1/2	2 1/2	1.278	0.625	8.231
H-28	1 1/2	1/2	1 1/2	2 1/2	1.533	0.750	8.231
H-29	1 1/2	5/8	1 1/2	2 1/2	2.001	0.938	8.621
H-30	1 1/2	1/2	1	3	1.744	0.750	9.356
H-31	1 1/2	1	1	3	4.074	1.500	10.926
H-34	2	1	1	3	5.432	2.000	10.926
H-35	3/4	3/4	1 3/8	1 3/4	1.135	0.562	8.128
H-155	2	3/4	1 3/8	3	4.050	1.500	10.896

2 mil					weight: pounds	gross area+:- sq. in.	mean length magnetic path: L _g
catalog number	strip width	build up	window width	window length			
L-1	1/4	1/8	1/4	1/2	0.014	0.031	1.783
L-2	1/4	3/16	1/4	5/8	0.027	0.047	2.233
L-3	3/8	3/16	1/4	5/8	0.040	0.071	2.233
L-4	1/4	1/4	1/4	7/8	0.047	0.063	2.933
L-5	3/8	1/4	1/4	7/8	0.067	0.094	2.933
L-6	1/2	1/4	1/4	7/8	0.091	0.125	2.933
L-7	3/8	7/32	5/16	1	0.064	0.082	3.208
L-8	3/8	3/8	3/8	1 1/16	0.147	0.141	4.198
L-9	1/2	3/8	3/8	1 1/16	0.197	0.188	4.198
L-11	3/4	3/8	3/8	1 1/16	0.293	0.281	4.198
L-12	1/2	7/16	1/2	1 1/8	0.244	0.219	4.523
L-14	1/2	1/2	1/2	1 1/8	0.346	0.250	5.588
L-15	5/8	1/2	1/2	1 1/8	0.436	0.313	5.598
L-16	3/4	1/2	1/2	1 1/8	0.519	0.375	5.588
L-17	1	1/2	1/2	1 1/8	0.693	0.500	5.588
L-18	1/2	7/16	5/8	1 1/8	0.305	0.219	5.648
L-19	1	1/2	5/8	1 1/8	0.724	0.500	5.838
L-20	1	5/8	5/8	1 1/8	0.965	0.625	6.228
L-22	1	5/8	5/8	1 1/8	1.080	0.625	6.978
L-23	1 1/4	5/8	5/8	1 1/8	1.352	0.781	6.978
L-24	1	5/8	3/4	2 1/16	1.220	0.625	7.871
L-54	2	3/4	3/4	4	4.325	1.500	11.646
L-25	1	7/8	1 1/2	2 1/2	2.040	0.875	9.411

12 mil					weight: pounds	gross area+:- sq. in.	mean length magnetic path: L _g
catalog number	strip width	build up	window width	window length			
A-4	3/4	3/8	7/16	1 3/8	0.324	0.281	4.386
A-1	5/8	1/4	1 1/2	1 1/8	0.161	0.156	3.933
A-2	3/4	1/4	1 1/2	1 1/8	0.193	0.188	3.933
A-3	1	3/8	1 1/2	1 1/8	0.514	0.375	5.198
A-5	1	5/16	5/8	1 1/8	0.430	0.313	5.248
A-81	1	1/2	3/8	1 1/8	0.765	0.500	5.838
A-6	1	5/8	5/8	1 1/8	1.020	0.625	6.228
A-7	1	3/8	5/8	1 1/8	0.613	0.375	6.198
A-8	1 1/4	3/8	5/8	1 1/8	0.761	0.469	6.198
A-9	1 1/4	1/2	5/8	1 1/8	1.080	0.625	6.588
A-326	3/4	9/16	5/8	2 1/2	0.866	0.422	7.806
A-10	1 1/4	3/8	3/4	2 1/2	0.871	0.468	7.091
A-161	1	7/16	3/4	2 1/2	0.838	0.438	7.291
A-28	1 1/2	5/8	3/4	2 1/2	1.940	0.938	7.871
A-145	2	5/8	3/4	2 1/2	2.580	1.250	7.871
A-86	1	3/4	3/4	2 1/2	1.630	0.750	8.271
A-371	2	1	1 1/2	2 1/2	5.330	2.000	10.176
A-11	1 1/2	3/8	1 1/2	2 1/2	1.160	0.562	7.841
A-12	1 1/2	1/2	1 1/2	2 1/2	1.620	0.750	8.231
A-13	1 1/2	1/2	1	3	1.842	0.750	9.356
A-14	2	1/2	1	3	2.480	1.000	9.463
A-15	2	1 1/16	1	3	3.580	1.375	9.946
A-48	2	3/4	1	3	3.980	1.500	10.146
A-111	1 1/2	1	1	3	4.300	1.500	10.926
A-16	2	1	1	3	5.730	2.000	10.926
A-37	2 1/4	27/32	1 3/16	3 1/8	5.510	1.900	11.071
A-185	1 3/8	5/8	1 3/16	3 1/2	2.560	0.859	11.371
A-19	2	3/4	1 3/8	3	4.280	1.500	10.896
A-203	2 1/4	1 1/8	1 5/8	3 3/8	8.850	2.530	13.426
A-459	2 13/16	1 3/32	1 5/8	4 3/16	11.950	3.080	15.277
A-480	2 13/16	1 3/32	1 3/4	4 11/16	12.950	3.080	10.991



HIPERMAG CORES

60 AND 400 CYCLES



Hipermag cores—Toroidal cores, tape wound with high permeability magnetic material and encased in nylon or aluminum boxes. Damping agents are used to protect the cores in their cases. Either silicone grease or silicone oil as is required. When oil filled, the cases are hermetically sealed to allow encapsulation or vacuum impregnation. Cores are available in Hipernik (50% iron-

nickel) and 4-79 Permalloy in gauges of 1, 2 or 4 mils. Cores are tested by the Roberts test method and test values guaranteed to assure proper performance for your magnetic amplifier application. *Cores can be supplied matched in pairs, quads or sixes by the Roberts test method.*

For additional information refer to descriptive bulletin 44-750.

catalog number size designation	core dimensions: inches			case dimensions: inches			core ratio: inside/ outside diameter	effective core area		mean length of magnetic path		nominal weight: grams
	inside diameter	outside diameter	height	inside diameter	outside diameter	height		square inches	square centimeters	inches	centimeters	
W1	$\frac{3}{8}$	$\frac{3}{4}$	$\frac{3}{16}$	.531	.843	.280	.832	.0094	.0605	2.16	5.49	2.80
W2	$\frac{3}{4}$	1	$\frac{1}{4}$	.656	1.094	.344	.750	.0250	.161	2.75	6.99	9.52
W3	1	1 $\frac{1}{4}$	$\frac{1}{4}$	.906	1.354	.3596	.800	.0250	.161	3.53	8.99	12.25
W4	1	1 $\frac{3}{8}$	$\frac{1}{4}$	.930	1.445	.330	.726	.0375	.242	3.73	9.49	19.37
W5	1	1 $\frac{1}{2}$	$\frac{1}{4}$	.906	1.639	.342	.667	.050	.322	3.93	10.00	27.15
W6	1	1 $\frac{1}{2}$	$\frac{3}{8}$	.930	1.570	.445	.667	.075	.483	3.93	10.00	40.80
W7	1	1 $\frac{1}{2}$	$\frac{1}{2}$	.906	1.639	.592	.667	.100	.645	3.93	10.00	54.40
W8	1 $\frac{1}{4}$	1 $\frac{3}{4}$	$\frac{1}{2}$	1.126	1.894	.6406	.714	.100	.645	4.72	11.99	65.30
W9	1 $\frac{1}{2}$	2	$\frac{1}{2}$	1.406	2.144	.629	.750	.100	.645	5.50	14.00	76.20
W10	1 $\frac{3}{8}$	2	$\frac{1}{4}$	1.525	2.11	.33	.813	.0375	.242	5.69	14.49	29.6
W11	1 $\frac{1}{2}$	2 $\frac{1}{2}$	$\frac{1}{2}$	1.334	2.629	.630	.600	.200	1.29	6.28	15.95	174.0
W12	2	2 $\frac{1}{2}$	$\frac{1}{2}$	1.860	2.640	.610	.800	.100	.645	7.07	17.99	98.0
W13	2	3	$\frac{1}{2}$	1.750	3.250	.750	.667	.200	1.290	7.86	19.95	215.0
W14	2	3	1	1.750	3.250	1.250	.667	.400	2.580	7.86	19.95	435.0
W15	2 $\frac{1}{2}$	3	$\frac{1}{2}$	2.360	3.152	.610	.833	.100	.645	8.64	21.95	119.5
W16	2 $\frac{1}{2}$	3 $\frac{1}{2}$	1	2.370	3.630	1.120	.714	.400	2.58	9.43	23.95	522.0
W17	2 $\frac{1}{2}$	3 $\frac{3}{4}$	1 $\frac{1}{4}$	2.330	3.920	1.395	.667	.624	4.03	9.82	24.95	850.0
W18	2 $\frac{1}{2}$	3 $\frac{3}{4}$	1 $\frac{1}{2}$	2.330	3.920	1.645	.667	.750	4.84	9.82	24.95	1020.0
W19	3 $\frac{1}{4}$	4 $\frac{1}{2}$	1 $\frac{1}{2}$	3.070	4.680	1.645	.723	.750	4.84	12.18	31.00	1262.0
W20	4	5 $\frac{1}{4}$	2	3.813	5.438	2.188	.762	1.00	6.45	14.52	36.99	2010.0

PULSE TRANSFORMERS

HERMETICALLY SEALED

Oil-filled output pulse transformers for peak voltage ratings 7 Kv and higher, and pulse widths from $\frac{1}{4}$ to 10 microseconds are

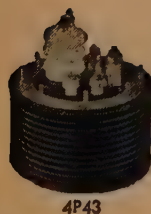
available in standard ratings and are also designed to customer specifications.

Catalog Number	Pulse Width Microseconds	Repetition Rate Pulses Per Second	Pulse KV Input/Output	Impedance Input/Output	Bifilar Amps Heater Current
4P59	0.5	2000	2.5/12	50/1100	1.0
4P37	0.5-5	200	3.3/15	50/1000	.25*
4P100	0.25	4000	3.5/14	50/1000	1.0
4P43	1-2.5	2000-400	5.5/22	50/800	2.5
4P148	.5	2500	3.5/28.5	15/960	1.25
4P147	.5	2500	4.75/28.5	25/960	1.25
4P86	.5	2500	6.56/28.5	50/960	1.25
4P79	1.0	400	5.3/26.5	25/625	3.0
8P3	1.8	400	6.86/35	33/848	1.72*
4P54	1-4	1200-300	6.26/30	25/650	2.0
4P71	1-4	600-150	6.1/31	25/625	2.4

*Design includes a filament transformer mounted in the H. V. bushing to transform 115 volt supply and Bifilar amps to magnetron heater requirements.

Low Power: Designed for use in low power, low voltage pulse circuits. Four general types are: (1) Blocking oscillator or regenerative drive, (2) Pulse trigger of current trans-

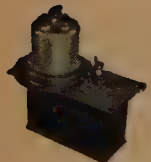
former, (3) Low power pulse output transformer, and (4) Coupling transformers. See Catalog Section 45-210.



4P43



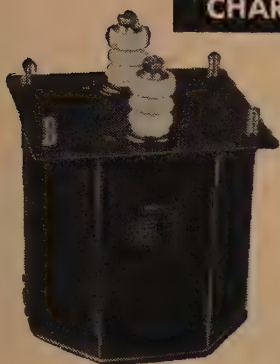
4P54



4P37



CHARGING CHOKES



HERMETICALLY SEALED

Used between D-C power supply and Pulse-forming network in high power pulse modu-

lators. Types, based on circuit operation, are resonant, hold-off diode, and linear.

Catalog Number	DC Supply KV	Network KV	Inductance Henries	Average Current MA	Repetition Rate Pulses Per Second
4Y22	5.5	11	27	122	400
4Y10	9	18	22	180	600
8Y3	9	18	10	315	340
4Y13	12.5	25	18	650	300/1200

WESTMOLD TRANSFORMERS

WESTMOLD

Filament—Plate—Power—Filter Choke—Low Power Pulse Transformers. Westmold transformers utilize type C Hipersil® cores in a one loop design to achieve a standard design transformer that will fit most applications with minor adaptations. Also available in 3 phase designs. WESTMOLD transformers have greater resistance to moisture penetration than previously available resin encapsulated transformers. The molding operation permits a thicker coating of resin. This coupled with completely filled, void-free coils increases the transformer's ability to withstand

high humidity and thermal aging. These transformers are cast in a mold with a material developed by Westinghouse Research Laboratories. This material maintains its flexibility at low temperatures and passes the type "C" thermal shock test of MIL-C-16923. The new molding material has less weight loss on heat aging than any other material tested.

The WESTMOLD transformer further offers dimensional stability and good appearance—the shape of the transformer is fixed by the mold in which it is poured.

TYPICAL DESIGN DATA 380-420 cycles -75° rise by resistance. 160° C maximum operating temperature in windings (with fosterite encapsulation or equivalent). Single coil-single core open type construction. Maximum regulation 15% 3,000 volts, rms, test. Class B insulation 2,000 hours life.

(1) Equivalent Voltampere Rating	Average Transformer Dimensions			Mounting Dimensions (2)		
	Height	Length	Width	Figure No.	A	B
10	$1\frac{5}{16}$	$1\frac{3}{8}$	$1\frac{1}{8}$	1	—	$1\frac{1}{8}$
16	$1\frac{9}{16}$	$1\frac{3}{8}$	$1\frac{3}{8}$	1	—	$1\frac{3}{8}$
25	$1\frac{1}{16}$	$1\frac{11}{16}$	$1\frac{3}{8}$	1	—	$1\frac{3}{4}$
40	$1\frac{13}{16}$	$1\frac{3}{4}$	$1\frac{3}{8}$	1	—	$1\frac{7}{16}$
63	$1\frac{13}{16}$	$1\frac{15}{16}$	$1\frac{3}{4}$	1	$1\frac{11}{16}$	$1\frac{7}{16}$
100	$2\frac{1}{16}$	$2\frac{1}{2}$	$1\frac{7}{8}$	1	$2\frac{1}{8}$	$1\frac{3}{4}$
125	$2\frac{3}{16}$	$2\frac{5}{8}$	2	1	$2\frac{1}{8}$	$1\frac{3}{4}$
160	$2\frac{1}{2}$	$2\frac{13}{16}$	$2\frac{1}{4}$	1	$2\frac{19}{64}$	$1\frac{55}{64}$
200	$2\frac{13}{16}$	3	$2\frac{3}{8}$	1	$2\frac{5}{8}$	$2\frac{1}{8}$
250	$2\frac{15}{16}$	$3\frac{1}{8}$	$2\frac{1}{2}$	1	$2\frac{5}{8}$	$2\frac{1}{4}$
315	$2\frac{15}{16}$	$3\frac{13}{16}$	$2\frac{1}{2}$	1	3	$2\frac{7}{16}$
400	$3\frac{5}{16}$	$3\frac{11}{16}$	$2\frac{7}{8}$	1	3	$2\frac{7}{16}$
500	$3\frac{9}{16}$	$4\frac{1}{4}$	3	1	$3\frac{5}{16}$	$2\frac{11}{16}$
630	$3\frac{9}{16}$	5	3	1	$3\frac{11}{16}$	3
800	$4\frac{1}{16}$	$4\frac{1}{4}$	$3\frac{5}{8}$	1	3	$2\frac{7}{16}$
1,000	$4\frac{1}{16}$	$5\frac{1}{4}$	$3\frac{5}{8}$	1	$3\frac{11}{16}$	3

LEGEND: (1) Voltampere rating based on 115 volt primary, 380 cycle minimum frequency, single secondary having a 3,000 volt insulation level and electrostatic shield for each additional secondary winding core. Rating must be decreased 10%. For 5 KV rms working voltage decrease core ratings in table by 33%. (2) Mounting centers conform to standard MIL-T-27A mounting dimensions.

When ordering or seeking information please mention Electronics Buyers' Guide.



MAGNETIC AMPLIFIERS

MAGAMP*



Westinghouse MAGAMP magnetic amplifiers can be used to advantage in most applications requiring reliable static power amplifiers that need little attention or maintenance and that will withstand high shock or vibration. MAGAMP amplifiers give high ratios of power output per unit volume and weight, high sensitivity and power gain, and good amplifier linearity.

The Westinghouse type K MAGAMP selenium rectifiers used have low reverse leakage currents necessary to assure long life and minimum aging in amplifiers utilizing high gain core materials. The thermo-setting resin protective coating and winding impregnation results in a reactor assembly that will present a maximum of environmental protection and yet be comparatively small and lightweight. These Westinghouse components and materials of known and proven quality combine to make MAGAMP magnetic amplifiers capable of long, high performance operation. MAGAMP amplifiers have been applied in servo systems as complex as aircraft auto-

pilots, in the control of motors from the smallest fractional horsepower size to the largest steel mill drive, in the regulation of generator voltages from the miniature aircraft unit to the central station generator. They have been used to amplify the minute outputs of thermocouples, photocells, ionization chambers, and strain gauges. Other applications have included arc welding controls, ignitron firing controls, paper mill reel control, automatic battery chargers, and isolation metering of d-c voltages and currents. MAGAMP amplifiers are available in the 3700 series under seven general numbers, as shown in the table below. They may also be engineered for specific applications. This service is available through your Westinghouse representative. For complete descriptive information on the 3700 series of amplifiers request Technical Data 52-600. Other magnetic amplifiers are covered in Technical Data 52-601, 52-602, 52-603, 52-604, 52-605, and 52-606.

*Trademark.

Characteristics of 3700 Series Magnetic Amplifiers

amplifier type number	3704	3708	3712	3716	3718	3719	3721
type of circuit	doubler	doubler	doubler	doubler	doubler	doubler	three-phase doubler
nominal power output, watts*	0.03	0.3	8.0	40.0	75.0	150.0	325.0
nominal ampere turns for control†	0.3	0.45	1.0	2.2	2.2	2.5	1.5
a-c supply: volts	6.3	12.6	30.0	115.0	115.0	230	230
freq.—cps	60	60	60	60	60	60	60
phase	1	1	1	1	1	1	3
max. usable incremental figure of merit‡	200	330	840	1300	2000	2300	3300
max. incremental power amplification (3-cycle response)§	225	440	1100	1200	2500	2200	8000 (6-cycle response)
response time $T = k_1 \frac{N^2}{R} + k_2 \text{ cycles}$							
constant k_1	1.7×10^{-8}	5.0×10^{-8}	13×10^{-8}	13×10^{-8}	13×10^{-8}	23×10^{-8}	32×10^{-8}
constant k_2	1.5	1.5	1.5	1.0	1.0	1.5	3.8
output current§ rated amperes			0.6	0.6	1.0	0.93	1.7
max. power output amps	0.015	0.068	0.71	1.25	2.1	2.3	5.0
load resistance, ohms rated (55°C, temp. rise)			28.0	148.0	85.0	175.0	130.0
max. power output	150.0	100.0	20.0	45.0	28.0	50.0	25.0
max. incremental power amp.	150.0	100.0	20.0	100.0	50.0	100.0	90.0
rectifiers self-saturating							
catalog number	12G11KE1C	21F12KA1A-I	23F14KA1B-I	23F18KA1B-I	24F18KA1A-I	24F18KA1A-I	24F18KA1A-I
part number	29B9406-21	29B9408-1A-I	29B9410-2B-I	29B9410-4B-I	29B9418-4A-I	29B9418-4A-I	29B9418-4A-I
number required	2		1	1	1	1	3
recommended complementary							
catalog number	12G11KE1C	21F41KA1D-I	23F41KA1D-I	24F44KA1D-I	24F44KA1D-I	24F46KA1D-I	24F116KA1D-I
part number	29B9406-21	29B9407-1D-I	29B9409-1D-I	29B9419-4D-I	29B9419-4D-I	29B9418-6D-I	29B9418-8D-I
number required	4	1	1	1	1	1	3
weight of reactor assembly pounds	0.27	0.30	1.1	2.9	5.0	6.5	19.5
size of assembly, inches diameter	1 1/4	1 1/4	2 1/2	3 1/2	4 1/2	4 1/2	4 1/2
height	1 3/4	1 3/4	2 3/4	3 3/4	3 3/4	4 3/4	4 3/4 x 3 units

* Maximum power output obtainable within the linear range of the control characteristic curve for rated load.

† Control ampere-turns necessary to change the output from cutoff to the nominal power output point.

‡ The ratio of the maximum power amplification to the response time.

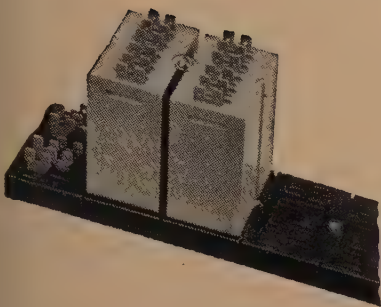
§ Power amplification corresponding to the three cycle response time taken over the linear range of the control characteristic curve for the optimum load resistance.

‡ Response time in cycles of supply frequency.

§ RMS value if output is a-c; average if output is d-c.



CYPAK *



The name CYPAC, applied to Westinghouse logic elements for industrial control, is derived from the new science of Cybernetics. The name stands for packaged Cybernetics—CY for Cybernetics, PAC for package.

CYPAC elements are definitely a replacement for relays, but not on a one-for-one basis. Relays accept only one input, and provide a number of isolated outputs. CYPAC elements, on the other hand, accept a number of inputs, and provide a single output. This output can be used for a number of functions.

Unlike relays, CYPAC elements have no moving parts, contacts, springs or other elements subject to wear or erosion. The result is a tremendous increase in control life and reliability. Since CYPAC is a static

device, there is no indication that life can be given in terms of the number of operations. However, the life of CYPAC elements is estimated as ten or fifteen times that of a conventional relay.

The operation of CYPAC elements is based primarily on magnetic amplifier principles, but with the addition of the unique Ramey circuit.

CYPAC static control is applicable to every type of industrial application involving sequential or contingent operation. It consists of a number of logic or "decision" devices which provide all functions that are performed by relays, along with auxiliary devices that form a complete system.

For additional information see technical data 52-760

* Trademark.

LOGIC FUNCTIONS

Signals are the common ingredient of all industrial control circuits. These information carriers make up both the quantity on which operations must be performed and the means by which operations can be performed. Signals are amplified, transmitted, or switched. They are also used for actuating control mechanisms and for matching between systems or their sections.

Electrical control nomenclature is based on the signal. Signals take one of two forms: "Analog" or "Digital". Electrical systems, equipment, and even design approaches are largely classified under these two headings. Although logic functions are primarily concerned with "digital" type control, a comparison of the two types serves as an effective method for defining them.

The "digital" signal is a sharp, discrete signal of definite duration. It is a pulse. The "analog" signal, in direct contrast, is continuous, and gives a continuous representation of some quantity or process. The signal from a switch is a digital type signal while that from a tachometer generator is analog.

DIGITAL CONTROL

Digital type control is perhaps the most common control approach in industrial control circuits. The most common digital device used in control circuits is the relay. Since 1836 the relay has been able to fill a constantly growing range of control requirements. Since the early 1920's, it has been used extensively for industrial control. Today it has reached a nearly perfect state of application. However, the relay's ability to continue to satisfy these needs is questionable. Although it is a versatile and well-suited performer, it can no longer keep pace with the demand for greater reliability.

Industry, and the high production industries, have demanded more and more life from the relay in recent years. Faced with the possibility of having to base even more complicated digital schemes on a device which seems to be approaching an upper limit in reliability, industry is asking for a fresh approach to its switching problems. Logic functions appear to be not only the approach required but also an opportunity to get closer to the fundamentals of digital control.

FUNCTIONS AVAILABLE

A logic function is a means of expressing a definite condition. Curiously, only four logic functions are required to express any possible condition, or specific arrangement or information. These are: AND, OR, NOT and MEMORY. The definition for each one of them can almost be deduced from their names.

MAGNETIC CONTROL

"AND" Function

In the "AND" function, an output is obtained only when all of a given number of input signals are applied. In other words, given input a and b and c and . . . j, an AND function delivers an output. Corresponds with relays in series.



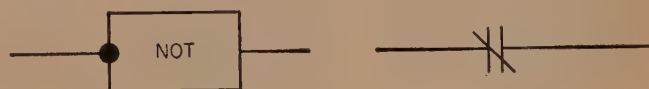
"OR" Function

In the "OR" function, an output is obtained when any one of a number of inputs is applied. Hence, given any input a or b or c or . . . j, the OR function delivers an output. Corresponds with relays in parallel.



"NOT" Function

In the case of the "NOT" function, an output can be obtained only when no input signal is applied. Therefore, given an input a, no output is obtained; but stop input a and the NOT function delivers an output. Corresponds to a normally closed relay.



"MEMORY" Function

The fourth type is the "MEMORY" function. Actually, there are two kinds of MEMORY functions—a limited function and an unlimited. Limited memory means that, following an input, a specified interval passes before an output is obtained. Or in other words, given an input a, an output is obtained after a specified time, T_1 . The unlimited memory function, as the name connotes, delivers an output following an input until such time as a second input is fed into the system; the second input stops the output. Hence, given input a, the unlimited MEMORY function delivers an output until input b is applied. Corresponds with a latched-in relay.





INSTRUMENTS

Panel Instruments



Type R-33



Type N-37



Type RC-35



Type N-35



Type R-35

Switchboard Instruments



Type 25



Type K-24

Portable Instruments

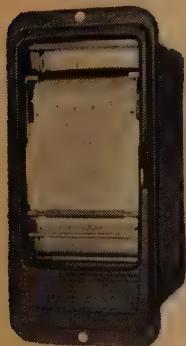


Type P-5



Type P-4

Recording Instruments



Type 44



Type P-14

A complete line of instrumentation is offered in panel portable, switchboard and recording types to measure a great variety of electrical quantities.

PANEL INSTRUMENTS, accurate to 2%, are available in 2½, 3½ and 4½ inch sizes. Included in this line are instruments to measure d-c microamperes, milliamperes, amperes, millivolts and volts; a-c milliamperes and volts at commercial power frequencies; microamperes, milliamperes and volts at audio frequencies; and milliamperes and amperes at radio frequencies.

Also included are decibel meters to measure power level in standard transmission lines and elapsed time meters ideally suited for tube life testing.

Round or rectangular case styles can be provided for both flush and projection mounting. The entire panel instrument line has co-ordinated styling enabling instruments of different sizes to be used on the same panel without sacrificing matched appearance.

Westinghouse panel instruments are fully approved under government specification MIL-M-6A and ASA specification C-39.1. See catalog section 43-300.

PORTABLE INSTRUMENTS can be supplied for ½, ¾ or 1% accuracy. A wide variety of multirange styles makes these instruments ideally suited to test different electronic circuits having wide ranges of current or voltage. Current ranges from as low as 10 microamperes to as high as 200 amperes full scale can be measured without the use of external accessories. Similarly obtainable are voltages measurements from two millivolts to 1500 watts.

Knife-edge pointers, minor dials and five-line scale divisions are provided on all portable instruments to assure quick, accurate readings. See catalog section 43-100.

SWITCHBOARD INSTRUMENTS are available either in the conventional 90° scale design or the modern design 250° scale. A tremendous variety of electrical quantities including current, voltage, power, reactive power, power factor, frequency and synchronism can be measured with these instruments.

The full view cover and dial construction on the K-24 instrument assures accurate readings at wide-angles from the instrument without parallax or shadow. See catalog section 43-200.

RECORDING INSTRUMENTS of the direct-acting type provide 1% accuracy. Simplicity is the keyword—minimum time required to change charts and fill the inkwell. The mechanisms—chart and measuring—are easily accessible for on-the-spot repair work if required. Fast response time, high torque and a continuous, accurate record are assured because of Westinghouse attention to design and construction details. All Westinghouse instruments have matched, co-ordinated styling, and performance is the result of years of experience in the manufacture of a high quality product. Dials that stay white, springs that do not change their characteristics and carefully honed pivots are only three of multiplicity of reasons why Westinghouse provides the highest quality instruments available.

A wide variety of ratings of all types are available from stock, ready for immediate shipment. See catalog section 43-415 and 43-440. Consult your nearest Westinghouse sales representative for details.



INDICATING LIGHTS



FOR A-C VOLTAGES
UP TO 550 VOLTS



A-C OR D-C SERVICE
125 VOLTS

Panel Mounting—Indicating lights have shock resistant lens with wide angle visibility. They are available in six

standard colors; red, green, amber, blue, opalescent, and crystal. Two types of lights are available:

FOR A-C VOLTAGES UP TO 550 VOLTS

Uses a transformer and a 6-8 volt bulb and is designed for voltages up to 550 volts, 60 cycles, a-c. The three major components of this unit are: (1) lamp

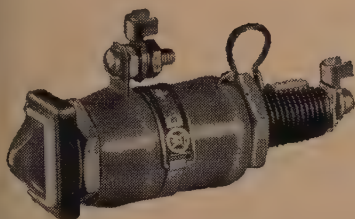
base with transformer and miniature bayonet #44 bulb; (2) shock resistant colored lens; and (3) legend plate.

A-C OR D-C SERVICE, 125 VOLTS

Is designed for either a-c or d-c service, 125 or 250 volts, and uses a 6-S-6 vibration type candelabra base bulb—with a resistor for 250 volts and full voltage for 125 volts. The major components

are: (1) lamp base, with resistor if required, and 125 volt 6-S-6 vibration type bulb; (2) shock resistant colored lens; and (3) legend plate.

MINIATURE LIGHTS AND SWITCHES



RECTANGULAR MINALITE®

A medium sized low-drain indicating light designed for extreme angular visibility and to provide the utmost in sturdiness, compactness, and appearance. Its design matches modern rectangular switchboard devices, such as instruments, relays and control switches. It is intended for general indicating or signal purposes on switchboards, control desks, etc.

ROUND MINALITE®

A compact, medium-drain indicating lamp developed especially for miniature steel switchboards, providing the maximum illumination in the smallest possible space. Since some rigidity was sacrificed to obtain the long slender construction, which permits close center spacing between adjacent lamps, it is intended only for such applications where the wire size is not larger than No. 18.

Complete information on component parts, hardware, receptacles and resistors available is contained in descriptive bulletin 37-350, which will be sent free on request.

THE WESTINGHOUSE MINATROL® SWITCH

A compact control switch of smaller dimensions than the conventional Type W control switch, designed particularly for use on miniature switchboards. It is available in forms to suit the varied requirements of control switch applications, and will handle the full control voltage without interposing relays. Its flexibility of application is practically the equivalent of the Type W switch.

Construction—The Minatrol is a rotary-type switch with the same design features which have made other rotary-type control switches outstanding in performance. The switch handles 125 or 250-volt control circuits directly, using toggle switches with quick-make and quick-break contacts mounted in unit-construction frame. It occupies only about one-fourth of the switchboard space required by the conventional switch and has a pleasing appearance, unmarred by the mounting screws.

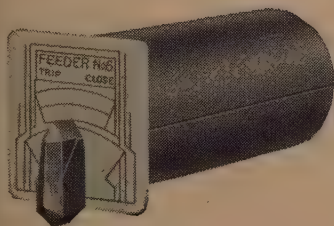
Performance—The current-carrying capacity and interrupting ability of the Mina-

trol is ample to handle the usual control circuit without the use of auxiliary interposing relays or intermediate control voltages. The switches are rated at six amperes continuous and can interrupt a non-inductive load of three amperes at 250 volts and six amperes at 125 volts d-c. The switch will interrupt highly inductive currents up to five amperes at 125 volts d-c or up to one ampere at 250 volts d-c. On a-c, values can be at least doubled at 250 volts maximum.

Classification—The Minatrol control switches are of two types:

1. Type C, for stay-put and spring return with fixed handles.
2. Type S, for stay-put with removable key handles.

Two standard lengths are available, one to accommodate a maximum of four switch units, and the other a maximum of eight switch units. A special twelve-switch unit length is available on order. Request Descriptive Bulletin 37-250 for complete information.





CONTROL DEVICES

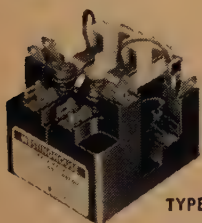


TYPE OT
OIL-TITE
CONTROL STATION
1 to 16 Unit Sizes
Available

OPEN
CONTACTOR

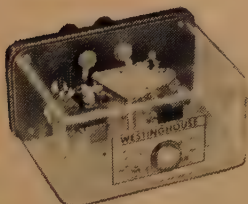


TYPE NH
CONTROL RELAY



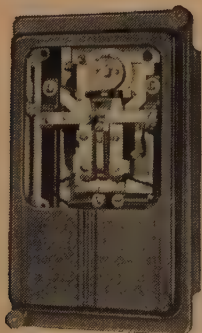
TYPE Z

TYPE TD



TYPE SG

TYPE TK



PUSHBUTTONS are available in a complete line of Standard, Heavy Duty, and Oil-Tite® units to meet the requirements of manufacturers of electronics equipment. The push-buttons and selector switch units are rated for continuous current of 10 amperes—see normal interrupting capacity table below. For complete information as to types, sizes, interrupting capacities, etc.; request free Descriptive Bulletin 15-000.

® Trademark.

TYPE OT OIL-TITE PUSHBUTTON RATINGS
CONTINUOUS RATING—10 AMPERES

voltage	normal interrupting amperes	
	with pushbutton operator	with selector switch operator
110-125 A-C	6.0	6.0
220-250 A-C	3.0	3.0
440-480 A-C	1.5	1.5
550-600 A-C	1.2	1.2
115-125 D-C	2.2	2.2
230-250 D-C	1.1	0.55
550-600 D-C	0.4	0.2

CONTACTORS of the famous Westinghouse Life-Linecontactor® design are available in three general classes: Reversing Mounted Life-Linecontactors • Mounted Life-Linecontactors* • Unmounted Contactors.

In addition, they may be modified with built-in pushbuttons, selector switches, control transformers or special combinations of modifications to suit the user. 8 Standard pole combinations are available for 5 to 2,500 amperes, 600 volts maximum, a-c or d-c. Oil-immersed contactors operate up to 5,000 volts at 200 amperes.

RELAYS: Type Z—Application: The type Z relay is a small, versatile, multi-pole relay used as an auxiliary magnetic device to switch light loads and small motors. It can be used for either a-c or d-c applications and is especially suitable as an interposing relay to operate larger contactors and starters. Description: This 2-pole relay with DPDT contacts meets U. L. Standard clearances for 230 volt and is designed for steel panel mounting. It has easily removable coils, both coils and cores being suitable for either a-c or d-c operation. Coil burden is approximately 5 watts a-c or 2 watts d-c. Design features: Completely encapsulated coils—Front connected with dual taps for amp junior faston terminals plus screws for wire connections—Molded base—Nylon armature insulating plate—Adjustable kick-out spring—Extremely long mechanical life—Contacts of extra-heavy solid silver—Contacts designed to avoid bounce when operating a size 4 contactor on a common base. Ratings: Contacts; continuous 10 amps at 300 volts. Coil; 6 to 220 volts a-c, 6 to 220 volts d-c*. Hp rating; ½ hp at 115 volts a-c, 1 hp at 230 volts a-c.

*Over 110 volts d-c includes a coil resistor for separate mounting.

Type NH relay is a general purpose control relay used for switching control circuits and other light electrical loads. Especially suitable for steel panels, it sequences multi-motor machines, operates solenoids and is used as a pilot control for electrical circuits

from pushbutton stations, temperature or pressure controls, limit switches and other devices. These relays are supplied in any combination of normally open and normally closed poles from two to six. The convertible contacts can be easily changed in the field from NO to NC or vice versa without additional parts. Coils can be changed readily for adapting relays to voltages through 600 volts AC. Type NH relays are available in NEMA type I enclosures.

Other standard NEMA types can be supplied on special order. For additional information request Descriptive Bulletin 16-302.

Type SG—For miscellaneous or remote switching; continuous operation on circuits up to 575 v, a-c and 600 v, d-c. Application: To energize multiple circuits. To furnish additional contact capacity for control circuits requiring currents higher than can safely be handled by the protective relay contacts. To provide flexibility of contact arrangement, such as opening and closing several circuits simultaneously. To give small time delays on pick-up or drop-out. For further information see Descriptive Bulletin 41-750.

Type TD and TK—Industrial control for intermittent duty in process timing such as electrolytic plating, heating, annealing. General auxiliary service for coordinating sequential switching functions. Protective relaying for required time delay to obtain selective relay coordination. Motor control for timed steps to cut out starting resistance. Power line carrier systems for automatic check-back schemes in checking transmission of carrier between terminals.

TD types available: synchronous motor, driven single, range timer. Ranges of operating time delay: 5-90 sec. Voltage ratings: a-c 60 cycles; 115, 230. TK types available: synchronous motor, driven triple, range timer. Ranges of operating time delay: 2-30 sec., 0.1-5 min., 1-50 min. Voltage ratings: a-c 60 cycle; 115, 230, 460, 575.

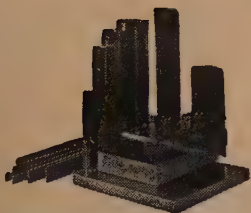
D-c; 125 and 250 volts d-c requires d-c/a-c inverter for synchronous timing motor for both types. For further information see Descriptive Bulletin 41-570.

Type MN—Used in d-c circuits requiring instantaneous overcurrent protection where the relay must maintain its accuracy under conditions of moderate shock or sustained vibration such as on shipboard. A typical application involves use of the relay in electronic tube circuits. In certain applications, the characteristics of the associated equipment may require a slight time delay in relay operation after the relay is energized. Winding the operating coil on a copper spool provides time delay as noted under "operating time".

"Special" type MN relays can be supplied having spdt. (circuit closing and circuit opening) contacts; also with mechanically actuated operation indicator. For further information see Descriptive Bulletin 41-750.



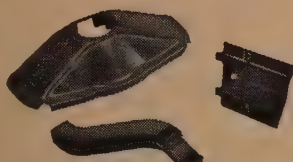
MICARTA



LAMINATED SHEETS AND SHAPES



MOLDED PIECES



MICARTA 444



COPPER CLAD MICARTA

MICARTA SHEETS AND SHAPES

Thirty grades of sheets, most of which are available in black or tan. Fillers include paper, cotton, asbestos and glass. The most commonly used by communication engineers is MICARTA tan (254) and black (464), both of which are paper base plastic. Either color supplied in 36" x 36" sheets, 1/32" to 2" thick. Also available to the electronic industry is XXXP warm punching grade H-3020 supplied from 1/32" to 1/4" thickness. MICARTA 259-2 is made of melamine resin in a base of glass cloth. It is grey, fire-resistant and very strong. Many of the standard grades are qualified under Military Specifications. Standard MICARTA shapes include angles, channels, zeels, rods and tubes. All are produced in six or more grades, in various dimensions.

MOLDED MICARTA

For large production quantities of simple or complicated shapes. Material placed in the mold may be in one of four forms: (a) wood flour and plastic, (b) impregnated

cloth or paper in laminated form, (c) impregnated cloth or paper chopped into small pieces, or (d) a combination thereof. Grades using sheets and chopped pieces make the strongest parts; those containing wood flour are useful for intricate shapes.

MICARTA "444"

This form of MICARTA offers a practical and economical means of obtaining molded forms or shapes with low-cost equipment and dies. Examples of the shapes are shown at left. A tan, green or black product, processed in flat sheets of various thicknesses, from cotton cloth impregnated with a phenolic resin binder. MICARTA "444" is a practical material for post forming many parts ordinarily made of drawn sheet steel.

COPPER CLAD MICARTA

Now available in sizes 36" x 42" and 36" x 36" in thicknesses from 3/64" through 1/8". Grades include XXXP both warm and cold punch plus epoxy glass copper clad for military requirements.

MAGNETIC METALS AND ALLOYS

Westinghouse Special Magnetic Alloys fill a variety of electrical and magnetic applications. These alloys provide a wide range of magnetic properties needed for many special requirements. For special needs these alloys will result in improved performance and are superior to the more common commercial magnetic materials.

HIPERNIK®

A magnetic alloy approximately equal proportions of iron and nickel having exceptionally high initial and maximum permeability and extremely low losses. Used in audio and instrument transformers, relays, magnetic bridges, shields for electronic tubes, etc.

HIPERNIK V®

A highly oriented magnetic alloy of approximately equal proportions of iron and nickel possessing a very high remanence accompanied by a low coercive force. This material is specifically designed for saturable reactors and magnetic amplifiers.

CONPERNIK®

A magnetic alloy of approximately equal proportions of iron and nickel having constant permeability over a range of low flux densities. It is used where constant inductance cores are required over a low range of inductions.

HIPERCO®

A magnetic alloy of approximately one-third cobalt and two-thirds iron. Hiperco has the highest magnetic saturation of any known commercial alloy. Permeability above 100 oersteds is far superior to iron and the electrical sheet steels. It is used as a core material for motors, generators, and transformers where minimum weight and size are prime requisites.

OTHER ALLOYS

Disaloy®, Refractaloy® and K42B® are three of the special high-temperature alloys developed by Westinghouse to meet special applications.

® Trademark.



Request Technical Data 52-100 and 52-200 for complete information

When ordering or seeking information please mention Electronics Buyers' Guide.



CIRCUIT BREAKERS

AB DE-ION®

K TYPE
400 AMP.E TYPE
100 AMP.J TYPE
225 AMP.F TYPE
100 AMP.100 AMP.
TRI-PAC

AB DE-ION CIRCUIT BREAKERS comprise a complete line of fuseless protective devices for distribution, power, lighting and electronic circuits. They are used in individual mountings, built-in applications, separate enclosures, switchboards and panelboards.

The sturdy moldarta breaker cases form complete self-enclosures, protecting work-ers and preventing tampering. Standard construction features are the De-ion arc quenchers, quick-make and quick-break mechanisms, and thermal-magnetic trip elements. Request Descriptive Bulletin 29-150.

FEATURES OF AB DE-ION CIRCUIT BREAKERS

	Quicklag-C Quicklag-P 1, 2 Pole	P-1** 1 Pole 2 Pole	E 2 Pole 3	F 3 Pole 4 #	G 2 Pole 3 Pole 4 #	J 2 Pole 3 Pole	K 2 Pole 3 Pole 4 #	KL 2 Pole 3 Pole	L 2 Pole 3 Pole	M 2 Pole 3 Pole
RATINGS										
Ampere Ratings—Min. (U. L. Listed)—Max.	10 50	#10 50	15 100	15 100	50 100	70 225	70 225	125 400	125 600	700 800
A-C Voltage Ratings—Max.	120 120/240	120 120/240	120/277* 240	600	600	600	600	600	600	600
D-C Voltage Rating—Max.		32	125 125/250 125/250	250	250	250	250	250	250	250
Underwriters Laboratories Interrupting Ratings—Amp.	5,000		5,000 10,000*	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Interrupting Ratings Amps A.C.—Based on NEMA Test Procedures	5,000	5,000	7,500	600 VAC 15,000 480 VAC 15,000 240 VAC 20,000	15,000	15,000	25,000	25,000	25,000	25,000
SPECIAL FEATURES (Partial List)										
Inst. Magnetic Trip Only				X	X	X	X	X	X	X
Non-Automatic		X	X	X	X	X	X	X	X	X
Shunt Trip			X	X	X	X	X	X	X	X
Undervoltage Trip				X	X	X	X	X	X	X
Auxiliary Switch			X	X	X	X	X	X	X	X
Alarm Switch				X	X	X	X	X	X	X
Mechanical Interlock			X	X	X	X	X	X	X	X
Reverse Current							X	X	X	
Moisture-Fungus Treatment	X	X	X	X	X	X	X	X	X	X
Complete Electrical Operation						X	X	X	X	X
Enclosure Handle Mechanism			X	X	X	X	X	X	X	X

** Thermal Only.

Not U.L. Listed.

*Single-pole 15 and 20 amp ratings for 277/480 V A-C circuits.

TRI-PAC* The TRI-PAC breaker provides triple protection; thermal, magnetic, and current limiting protection in a single compact device. It combines the design and operating features of the type F breaker with a set of high interrupting capacity limiting fuses.

The fuse elements are designed to coordinate with the thermal magnetic trip unit so that the trip unit protects against most of the overloads and short circuits. The fuses open the circuits only on high value faults. Their speed of operation and current limiting characteristics protect the TRI-PAC.

° Trademark.

Space does not permit the description of all products used in the electronic field. If additional information is desired on the following components, contact your nearest Westinghouse office for the literature indicated.

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Signaling	cs 45-100
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Transistors, Germanium	page 205
Transmitters, Radio Broadcast	db 81-120

YOU CAN BE SURE...IF IT'S

Westinghouse

P.O. BOX 868, PITTSBURGH 30, PA.

ONE SOURCE

for ALL your
Ceramic Resistor
requirements

Global®

THERMISTORS

1. Temperature control
2. Temperature compensation
3. Time delay
4. Surge suppression

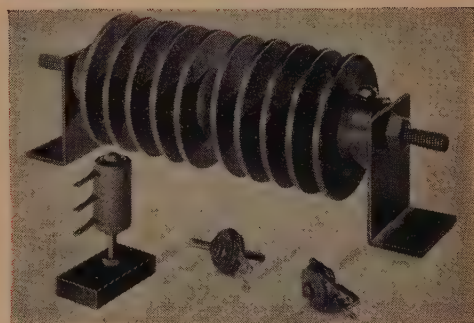
VARISTORS

1. Reduction of arcing at relay or motor governor contacts
2. Stabilization of rectifier circuits by limitation of peak voltage
3. Voltage control in electronic circuits
4. Protection of solenoids in direct current circuits

NON-INDUCTIVE HIGH WATTAGE FIXED RESISTORS

1. Antenna terminators
2. Dummy antennas
3. Parasitic oscillator suppressors
4. Power resistors for applications such as radio transmitters and inductive heating units

COMPLETE ASSEMBLIES



GLOBAR® Ceramic Resistors...like these recent designs...are engineered by Global resistor specialists to meet the particular electrical, thermal and packaging requirements of *your* circuit.

OVER THIRTY YEARS of experience in the development and manufacture of special-characteristic Ceramic Resistors, plus complete engineering facilities and an experienced engineering staff, are at your service to solve your special resistor requirement problems.

A GLOBAL DIVISION Sales Engineer will be glad to discuss your application. Or send details of your problem direct. Write Global Division, The Carborundum Company, Dept. EB 87-75, Niagara Falls, N.Y.



**Ceramic
Resistors**

by **CARBORUNDUM**
REGISTERED TRADE MARK

When ordering or seeking information
please mention Electronics Buyers' Guide.

International Rectifiers

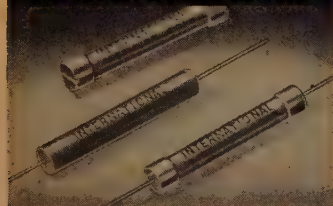
For all DC needs from microwatts to megawatts!

SELENIUM



Developed for use in limited space at ambient temperatures ranging from -50°C to $+100^{\circ}\text{C}$. Encapsulated to resist adverse environmental conditions. Output voltages from 20 to 160 volts; output currents of 100 microamperes to 11 MA. Bulletin SD-1B

HIGH VOLTAGE CARTRIDGE RECTIFIERS



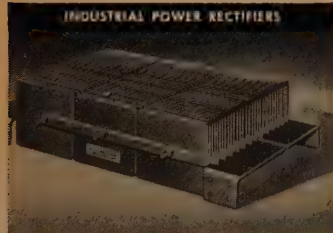
Designed for long life and reliability in Half-Wave, Voltage Doubler, Bridge, Center-Tap Circuits, and 3-Phase Circuit Types. Phenolic Cartridge and Hermetically Sealed types available. Operating temperature range: -65°C to $+100^{\circ}\text{C}$. Specify Bulletin B-2

TV AND RADIO RECTIFIERS



The widest range in the industry! Designed for Radio, Television, TV booster, UHF converter and experimental applications. Input ratings from 25 to 156 volts AC and up. DC output current 50 to 1,200 MA. Write for application information. Bulletin ER-178-A

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GERMANIUM



This series of general purpose, high quality point contact diodes provide excellent rectification efficiency for very high frequency applications. Special "RED DOT" series available for ambient temperatures from -55°C to $+100^{\circ}\text{C}$. Bulletin SR-140.

GERMANIUM RECTIFIER STACKS



Extremely low reverse leakage values make this series ideal for magnetic amplifier applications. These units utilize 10 amp junctions—26 to 66 AC input volts rms—are available in a wide range of circuit types and DC current ratings. Bulletin SR-148.

AIR-COOLED GERMANIUM JUNCTIONS



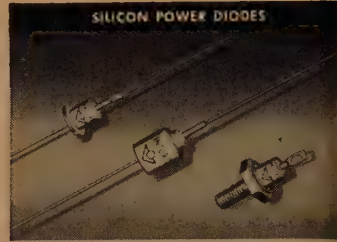
Engineered for heavy power applications, these highly efficient forced air cooled units feature moisture and corrosion resistant housings. A complete series in each of 3 current ratings: 150, 330 and 500 Amperes @ 26 to 66 volts rms. Request Bulletin GPR-2.

LIQUID COOLED GERMANIUM JUNCTIONS



Liquid cooled for maximum power in minimum space. Junction rating: 670 amps at 26 to 66 volts rms. Housed in high-conductivity copper cast around special steel coils. Water, oil or other accepted coolants may be used. For complete data. Bulletin GPR-2.

SILICON



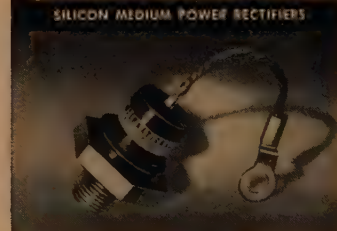
Hundreds of types in three basic styles, for operating temperatures from -55°C to $+150^{\circ}\text{C}$. Up to 800ma DC output current per junction over a voltage range of 50 to 1,000 PIV. Hermetically sealed. For complete information on all types. Bulletin SR-A.

SILICON CARTRIDGE RECTIFIERS



The answer to tough miniaturization problems! Ratings for high temperature applications: from 1000 volts PIV at 100ma half-wave DC output to 16,000 volts PIV at 45ma. Hermetically sealed, metallized ceramic housing. Request Bulletin SR-139B

SILICON MEDIUM POWER RECTIFIERS



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SILICON RECTIFIER STACKS



These units consist of hermetically sealed junction diodes mounted on copper cooling fins, stacked to include the interconnections required for specific circuits. Junction ratings: 1.25 amps. DC output; 70 to 350 AC input volts rms. Request Bulletin SR-137A.



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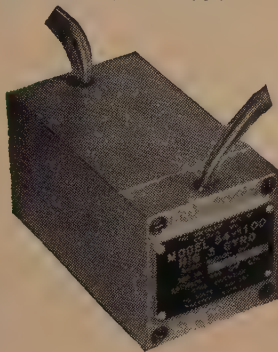


FOR TODAY'S PROJECTS — TOMORROW'S PLANS



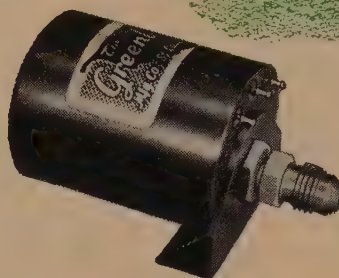
HIG-3 MODEL 2 INTEGRATING GYROSCOPE

This smallest integrating Gyro is dimensionally $1\frac{1}{2}'' \times 1\frac{1}{2}'' \times 2\frac{3}{4}''$ including heater block and is being used in fire control and navigation systems. Has viscous damping, single degree of freedom and a maximum drift rate of .2 milliradians/second.



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Used for the measurement of absolute, differential and gage pressures. Accuracies within $\pm 2\%$ or better throughout entire operating range.



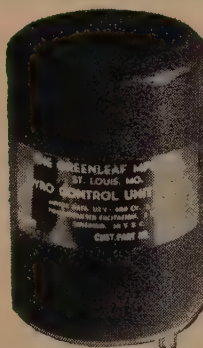
HIG-4 MODEL 2 GYRO

Greater accuracy, including low drift rate, is a feature of this HIG-4 Gyro, now being used for missile guidance and fire control systems. The design and development phases of this Gyro have long been completed and it is now a production item.



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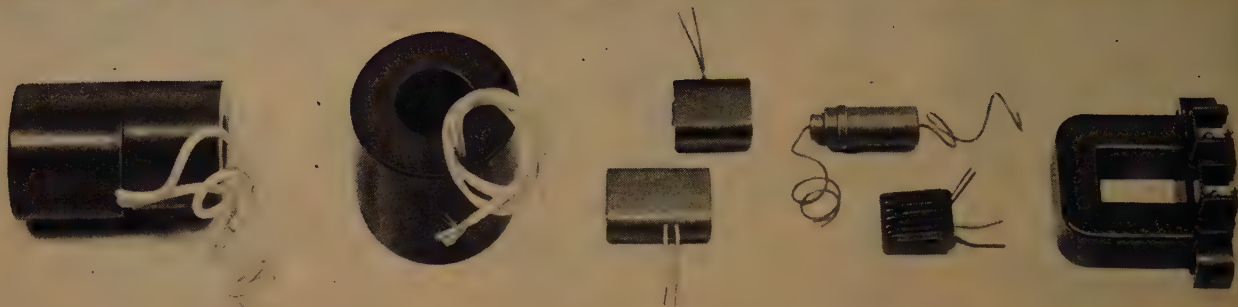
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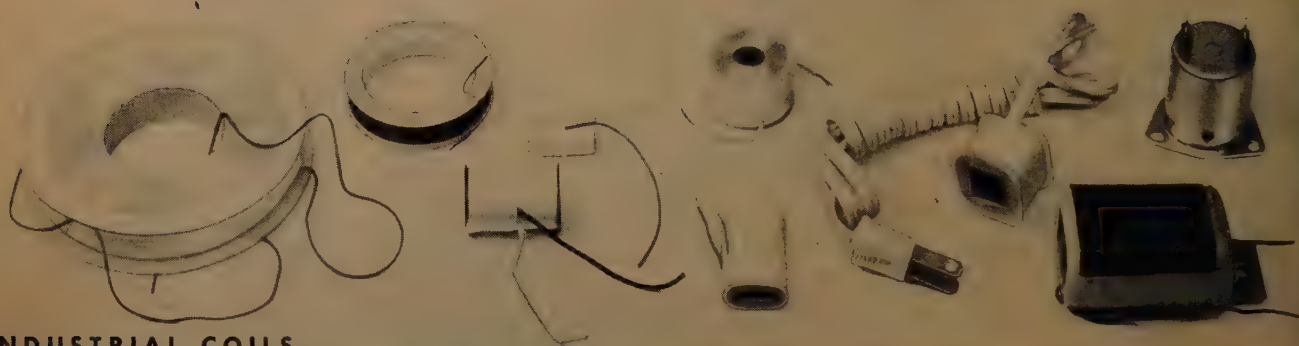
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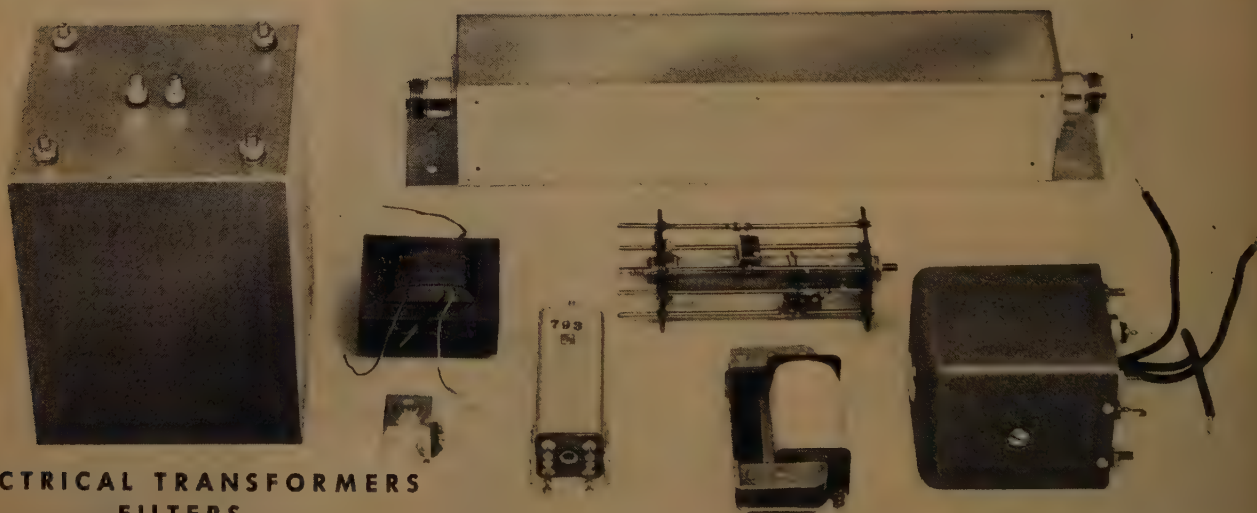
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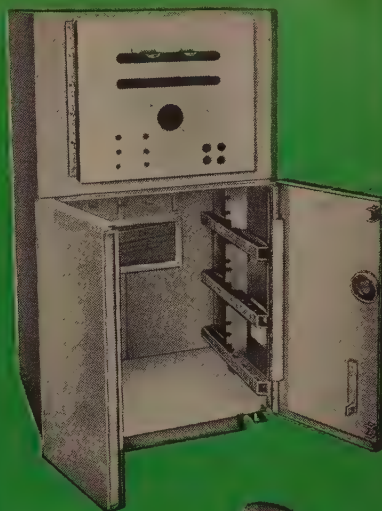
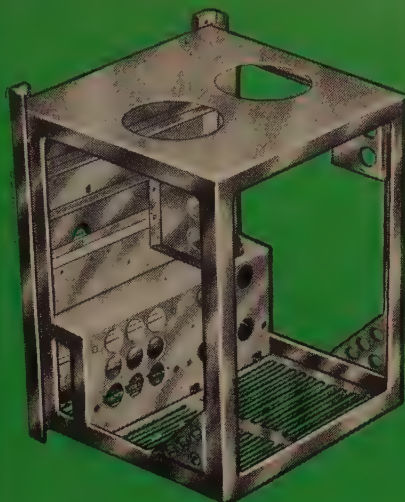
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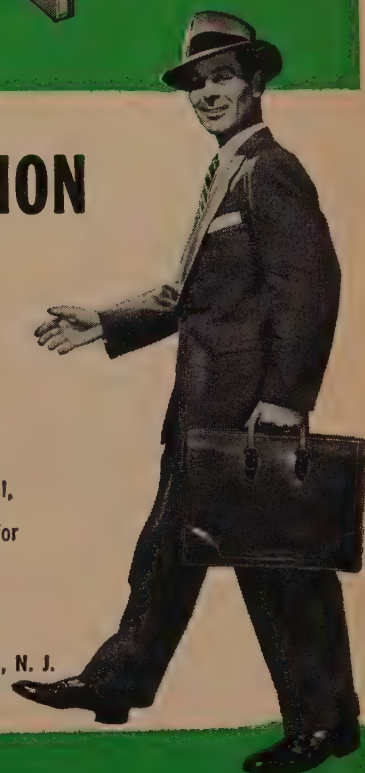
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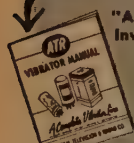
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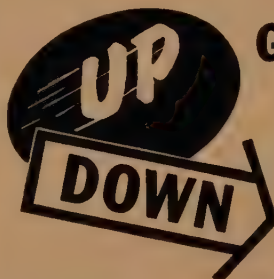
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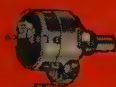
Typical Bushing Mounted Controls



Miniaturized 3/4" diameter composition



15/16" diameter composition



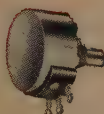
15/16" diameter composition with SPST switch



1-1/8" diameter concentric tandem tone switch and composition variable resistor with SPST on-off switch



1-1/8" diameter composition with SPST switch



1-17/64" diameter 2 watt wirewound



1-17/32" diameter 4 watt wirewound

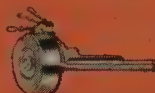
Typical Ear-Mounted Controls



Molded shaft twist ear mounted 15/16" diameter composition



Hollow shaft twist ear mounted 15/16" diameter composition for screwdriver adjustment



Twist ear mounted 15/16" diameter composition with flatted shaft for push-on knobs



Twist ear mounted 15/16" diameter composition with SPST switch



Twist ear mounted 15/16" diameter pre-set tandem



Miniaturized clinch ear mounted composition

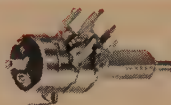


Miniaturized clinch ear mounted composition with SPST switch

Typical Printed Circuit Controls



Solder or clinch ear mounted 15/16" diameter composition with flush shaft



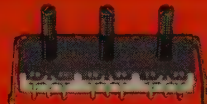
Bushing mounted 15/16" diameter concentric tandem composition with SPST switch



Self-supporting snap-in mounted 15/16" diameter composition



Self-supporting snap-in bracket mounted 15/16" diameter composition with SPST switch



Self-supporting snap-in mounted compact 3-section multiple composition



Miniaturized bushing mounted 3/4" diameter composition

Terminals For Wire Wrapping



Bushing mounted 15/16" diameter composition with SPST switch

Typical Military Controls



Miniaturized 3/4" diameter 1/2 watt composition



15/16" diameter 1 watt composition



15/16" diameter composition with water-seal between shaft and bushing and bushing and panel



1-1/8" diameter composition



1-1/8" diameter 2 watt composition



1-17/64" diameter 2 watt wirewound with locking type bushing



1-17/32" diameter 4 watt wirewound

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Variable resistors shown 1/3 actual size



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Type D
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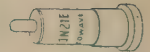
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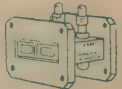
SILICON POWER RECTIFIERS



MAGNETRONS



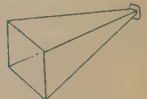
DUPLEXER TUBES



PRESSURE WINDOWS

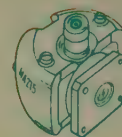
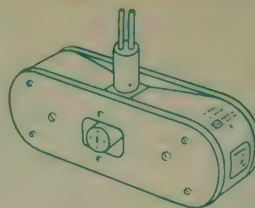


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MICROWAVE MIXER DIODES

CARRIER FREQUENCY	REVERSE POLARITY	MATCHED PAIR ⁶		REVERSIBLE POLARITY ⁵	TEST FRE- QUENCY	MAX. CON- VER- SION LOSS	MAX. OUTPUT NOISE RATIO	MAX. VSWR IN STD. MIXER	POWER LEVEL	BURN- OUT	CALC. OVERALL REC'R NOISE FIGURE	STD. LOAD IMP.		IF IMP.	STANDARD MIXER
		Forward Pair	Forward & Reverse									D.C.	A.C.		
	(FIXED)				(mc)	(db)	(times)		(mw)	(ergs)	Nif 1.5 DB			(ohms)	
B	1N21BR	1N21BM	1N21BMR	1N416B	3060	6.5	2.0	—	0.5	2.0	10.34	100	400Ω	200-800 ⁹	JAN 124 & 125
C	1N21CR	1N21CM	1N21CMR	1N416C	3060	5.5	1.5	—	0.5	2.0	8.33	100	400Ω	200-800 ⁹	JAN 124 & 125
D	1N21DR	1N21DM	1N21DMR	1N416D	3060	5.0	1.3	1.5	0.5	2.0	7.34	100	400Ω	400-500 ⁷	JAN 124 & 125
E	1N21ER	1N21EM	1N21EMR	1N416E	3060	—	—	1.3	0.5	5.0	7.0 ⁸	100	400Ω	400-500 ⁷	JAN 124 & 125
F	1N150R	1N150M	1N150MR	MA-419A	6750	6.0	2.0	1.5	1.0	1.0	9.83	100	400Ω	250-500	MA-570
G	1N160R	1N160M	1N160MR	MA-419	6750	6.5	2.7	—	1.0	1.0	11.44	100	400Ω	200-500 ⁹	MA-570
H	1N23BR	1N23BM	1N23BMR	1N415B	9375	6.5	2.7	—	1.0	0.3	11.43	100	400Ω	300-600 ⁹	JAN 105 & 106
I	1N23CR	1N23CM	1N23CMR	1N415C	9375	6.0	2.0	1.5	1.0	1.0	9.83	100	400Ω	325-475	JAN 105 & 106
J	1N149R	1N149M	1N149MR	MA-414	9375	5.5	1.5	1.5	1.0	1.0	8.32	100	400Ω	325-475	JAN 105 & 106
K	1N23DR	1N23DM	1N23DMR	1N415D	9375	5.0	1.7	1.3	1.0	1.0	8.25	100	400Ω	350-450	JAN 105 & 106
L	1N23ER	1N23EM	1N23EMR	1N415E	9375	—	—	1.3	1.0	2.0	7.5 ⁸	100	400Ω	350-450	JAN 105 & 106
M	—	—	—	MA-400	10000	6.0	2.0	1.6	1.0	0.3	9.83	100	500Ω	350-550	MA 650 ²
N	—	—	—	MA-407	10000	6.5	2.0	—	1.0	0.3	10.30	100	500Ω	400-800	MA 650 ²
O	—	—	—	—	16000	7.5	2.5	—	1.0	0.3	12.14	100	500Ω	325-625	JAN 201
P	—	—	—	—	16000	7.0	1.5	1.6	1.0	0.3	9.82	100	500Ω	365-565	JAN 201
Q	—	—	—	—	23984	8.5	2.5	—	1.0	0.1	13.14	100	500Ω	300-600	JAN-107
R	—	1N53M	—	—	34860	8.5	2.5	1.6	1.0	0.1	13.14	100	500Ω	400-800	JAN-174
S	—	—	—	—	34860	8.5	2.5	1.6	1.0	0.3	13.14	100	500Ω	400-800	JAN-174
															MA-607
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RG-98/U Ridged Waveguide Mounted (26.5-75 Kmc) suitable for mixer or video use															



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TUBE TYPE	FREQUENCY	NOMINAL PEAK OUTPUT	PEAK VOLTAGE ANODE	VOLTAGE RATE OF RISE	AV. ANODE CURRENT	PEAK ANODE CURRENT	PULSE DURATION	DUTY CYCLE	PULLING FACTOR (Max)	INITIAL HEATER VOLTAGE	INITIAL HEATER CURRENT
	MC	KW	KV	KV μ S	MA	A	μ S		MC	V	A
2J42	9345-9405	8	5.3-5.7	60	9.0	4.5	1.0	.002	15	6.3	0.43-0.60
	9345-9405	8	5.3-5.7	60	4.0	4.5	2.2	.0009	15	6.3	0.43-0.60
	9345-9405	8	5.3-5.7	60	1.44	4.5	0.4	.00032	15	6.3	0.43-0.60
6270	9501-9600	All Other Characteristics Same As 2J42									
6272	9406-9500										
6273	9101-9200										
6274	9000-9100										
6275	9201-9345										
2J42H	9435-9405	2J42 Modified for High Altitude Unpressurized Operation to 60,000 Feet									
6817	9000-9100	All Other Characteristics Same As 2J42H									
6818	9101-9200										
6819	9201-9300										
6820	9301-9400										
6821	9401-9500										
6822	9501-9600										
6027 (2J42A)	9345-9405	20	6.4-7.4	60	7.5	7.5	1.0	.001	15	6.3	0.43-0.53
	9345-9405	10	6.0-7.0	60	7.0	3.5	1.0	.002	15	6.3	0.43-0.53
MA-201	9345-9405	20	7.4-7.8	60	7.5	7.5	1.0	.001	18	6.3	0.43-0.53
	9345-9405	20	7.4-7.8	60	2.4	7.5	0.4	.00032	18	6.3	0.43-0.53
MA-201-F1	9000-9099	All Other Characteristics Same As MA-201									
MA-201-F2	9100-9199										
MA-201-F3	9200-9299										
MA-201-F4	9300-9399										
MA-201-F5	9400-9499										
MA-201-F6	9500-9600										
6229	8900-9400 Tunable	1	4.0-4.5	—	0.25	0.5	.25	.0005	20	5.0	.40-.50
MA-213	8800-10000	5 watts	4.0-4.5	—	2.5	0.8	1.0	.003	20	5.0	.40-.50
			450-500 volts	—	15.0	0.060	1.0	.25	15	6.0	.50-.60
MA-215	8800-9600	40 watts	800 volts	—	50.0	0.200	5 max.	.25	20	6.3	.6-.7

X BAND CW MAGNETRONS

(FIXED TUNED)

TUBE TYPE	FREQUENCY	NOMINAL OUTPUT	ANODE VOLTAGE	ANODE CURRENT	PULLING FACTOR	INITIAL HEATER VOLTAGE	INITIAL HEATER CURRENT
	Mc	(watts)	V	MA	(Max) mc/s	V	A
ESM-48	9800-10000	1	450-500	15	10	6.0	0.4-0.5
6444-F1							
6444-F2	9600-9799	All Other Characteristics Same As 6444-F1. This series may be pulse modulated as MA-213 shown above.					
6444-F3	9400-9599						
6444-F4	9200-9399						
6444-F5	9000-9199						
6444-F6	8800-8999						

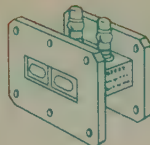
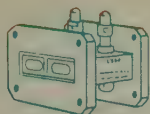
35,000 mc/s PULSED MAGNETRONS

(FIXED TUNED)

TUBE TYPE	FREQUENCY	NOMINAL PEAK OUTPUT	ANODE OPERATION			PULSE DURATION	DUTY CYCLE	PULLING FACTOR	INITIAL HEATER	
			PEAK VOLTAGE	AVERAGE CURRENT	PEAK CURRENT				VOLTAGE	CURRENT
	MC	KW	KV	MA	A	μ S		(Max) Mc/s	V	A
5789	34512-35208	40	10.0-13.0	5.0	20.0	0.25	.00025	40	6.0	2.0-2.4
	34512-35208	30	10.0-13.0	6.0	15.0	0.5	.0004	40	6.0	2.0-2.4
	34512-35208	20	10.0-13.0	6.0	10.0	1.0	.0006	40	6.0	2.0-2.4
MA-200*	34700-35000	40	11.0-13.0	5.0	20.0	0.25	.00025	40	12.6	2.6-3.0
MA-206*	34700-35000	20	11.0-13.0	5.0	10.0	0.25	.0005	40	12.6	2.6-3.0
MA-207*	34700-35000	60	11.0-13.0	8.0	20.0	0.25	.0004	—	12.6	2.6-3.0

No Change in Operating Characteristics During Vibration of 15G up to 1000 cps. Ideally suited for Airborne or Mobile Use. Same Physical Outline. CONTACT MICROWAVE ASSOCIATES, INC. OR THE SALES OFFICE IN YOUR AREA FOR FURTHER DETAILS ON ANY OF THE ABOVE TYPES AND CLASSIFIED OR DEVELOPMENTAL TYPES NOT YET LISTED.

DUPLER TUBES



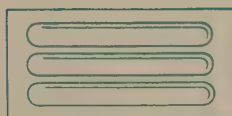
S-BAND TR TUBES

X BAND TR-ATR TUBES

FREQUENCY (Mc/s)	PEAK POWER (KW)	DESCRIPTION	WAVEGUIDE TYPE	
			INPUT	OUTPUT
2664-2969	750	Band-Pass, Fixed-Tuned TR	RG-48/U	RG-48/U
2664-2969	750	1B58 with Extra Holes for Pressurization	RG-48/U	RG-48/U
2900-3200	750	Band-Pass, Fixed-Tuned TR	RG-48/U	RG-48/U
3100-3500	750	Band-Pass, Fixed-Tuned TR	RG-48/U	RG-48/U

TUBE TYPE	FRE- QUENCY (Mc/s)	PEAK POWER KW	DESCRIPTION	WAVEGUIDE TYPE	
				INPUT	OUTPUT
1B24A	8490-9600	100	Integral Cavity Tunable TR	RG-52/U	RG-52/U
1B63A	8490-9578	200	Band-Pass, Fixed-Tuned TR	RG-52/U	RG-52/U
MA-316/6232	8490-9578	200	Similar to 1B63A	RG-51/U	RG-52/U
5863	8490-9578	250	Band-Pass TR	RG-51/U	RG-51/U
6164	8500-9600	200	Band-Pass, Fixed-Tuned TR	RG-51/U	RG-51/U
			Controlled Phase & VSWR		
MA-311	8490-9578	250	6164 Outline, 5863 Electrical Specs	RG-51/U	RG-51/U
6163	8500-9600	250	ATR Used in Tandem in Special Mount for RG-51/U Waveguide		
6334	8490-9600	200	Dual 1B63-A	RG-52/U	RG-52/U
MA-306	8490-9578	250	Dual Band-Pass TR	RG-51/U	RG-52/U
MA-306B	8490-9578	500	Dual Band-Pass TR	RG-51/U	RG-52/U
MA-326	8490-9578	200	Dual Band-Pass TR (low leakage & controlled phase)	RG-52/U	RG-52/U
MA-334	8490-9578	350	Dual Band-Pass TR	RG-52/U	RG-52/U
MA-335 Series	8400-10,000	1	Fixed Tuned TR: Low Level Crystal protector, 200Mc Band Pass	RG-52/U	RG-52/U

WAVEGUIDE PRESSURE WINDOWS



Cover Flange Mounted Windows

SIGNATION	BAND	CENTER FREQ. (MC)	FREQUENCY RANGE (KMC)	MAX. VSWR (Band Edges)	PEAK POWER (KW)	WAVEGUIDE SIZE RG-	MAX. PRESSURE (PSI)	MATES WITH UG-	FLANGE THICKNESS	WINDOW DESCRIPTION
A-1326	S	2800	2.45- 3.15	1.25	1200	48/U	45/30	54A/U	.250	Triple Iris
A-1329	Xi	9000	7.5 -10.0	1.15	500	51/U	45/20	52A/U	.060	Single Iris
A-1330A	X	9000	8.4 - 9.6	1.15	200	52/U	60/30	40A/U	.156	Triple Iris
A-1344	X	9000	8.5 - 9.6	1.08	300	52/U	45/30	40A/U	.060	Single Iris
A-1330B	X	9800	8.2 -12.4	1.20	200	52/U	60/30	40A/U	.156	Triple Iris
A-1345	X	9800	8.2 -12.4	1.20	300	52/U	45/30	40A/U	.060	Single Iris
A-1339	X	9800	9.5 -10.1	1.10	20	2x.91D	45/30	1.187 Dia.	.060	Single Iris
A-1333B	Ke	13500	12.8 -14.2	1.10	125	91/U	45/30	541/U	.125	Single Iris
A-1340	Ke	13500	12.8 -14.2	1.10	125	91/U	45/30	541/U	.060	Single Iris
A-1333A	Ku	15000	12.4 -18.0	1.20	125	91/U	45/30	541/U	.125	Single Iris
A-1342	Ku	15000	12.4 -18.0	1.20	125	91/U	45/30	541/U	.060	Single Iris
A-1333C	Ku	16000	15.2 -16.8	1.10	125	91/U	45/30	541/U	.125	Single Iris
A-1341	Ku	16000	15.2 -16.8	1.10	125	91/U	45/30	541/U	.060	Single Iris

Solderable Windows

A-1318	S	2800	2.75- 2.85	1.25	170	48/U	60/45	1.500 2.975	.120	Single Iris
A-1325	S	2800	2.45- 3.15	1.25	1200	48/U	45/30	1.500 3.000	.120	Triple Iris
A-1306	S	3300	3.25- 3.35	1.25	170	48/U	60/45	1.500 3.000	.120	Single Iris
A-1321	X	8800	8.5 - 9.1	1.25	100	52/U	60/45	.500 1.000	.075	Single Iris
A-1301	X	9000	8.8 - 9.2	1.25	20	52/U	60/45	.500 1.000	.050	Single Iris
A-1310	X	9000	8.8 - 9.2	1.25	20	52/U	45/30	.494 .988	.055	Single Iris
A-1320	X	9000	8.7 - 9.3	1.25	100	52/U	60/45	.500 1.000	.075	Single Iris
A-1327	X	9000	8.4 - 9.6	1.25	150	52/U	45/30	.500 1.000	.065	Single Iris
A-1302	X	9200	8.9 - 9.5	1.25	100	52/U	60/45	.500 1.000	.075	Single Iris
A-1312	X	9310	9.0 - 9.6	1.25	100	52/U	60/30	.500 1.000	.075	Single Iris
A-1319	X	9375	9.1 - 9.7	1.25	100	52/U	60/45	.500 1.000	.075	Single Iris
A-1317	X	9600	8.35-11.0	1.25	200	52/U	60/30	.600 1.100	.050	Triple Iris
A-1322	X	9600	9.3 - 9.9	1.25	100	52/U	60 45	.500 1.000	.075	Single Iris
A-1303	X	9800	9.5 -10.2	1.25	150	52/U	45/30	.500 1.000	.075	Single Iris
A-1324	X	9800	9.6 -10.0	1.25	20	52/U	45/30	.494 .988	.055	Single Iris
A-1331	X	9800	9.6 -10.2	1.10	150	52/U	45/30	.500 1.000	.065	Single Iris
A-1311	X	9900	8.2 -12.4	1.25	200	52/U	60/30	.600 1.100	.050	Triple Iris
A-1323	X	9900	9.6 -10.2	1.25	100	52/U	60/45	.500 1.000	.075	Single Iris
A-1314	X	10150	9.8 -10.55	1.25	150	52/U	45/30	.500 1.000	.065	Single Iris
A-1328	X	10700	10.0 -11.4	1.25	150	52/U	45/30	.500 1.000	.075	Single Iris
A-1336	Ke	13500	13.0 -14.0	1.25	40	91/U	45/30	.380 .690	.045	Single Iris
A-1337	Ku	16000	15.4 -16.6	1.25	40	91/U	45/30	.380 .690	.045	Single Iris

ADDITIONAL WINDOW DATA:

A safety factor of 2 in power has been included in the data. Power is measured under operating conditions of one microsecond pulse duration at 1000 cps at atmospheric pressure on both sides of the window at sea level. Maximum window VSWR at the center frequency is less than 1.05.

Maximum pressure ratings listed in the table apply to pressure in both directions. The windows will withstand maximum pressure when mounted with the glass coating on the high pressure side of the seal.

The resonant frequency of any window style can be adjusted for other requirements on request.

Microwave Associates windows provide a vacuum tight seal and protection against humidity, dust etc. They are used to seal resonant cavities, waveguide and antenna systems, gas discharge tubes, vacuum tubes and ferrite components.

Write for our free window brochure 57-W. This brochure describes pressure windows in detail and includes helpful tips on the installation of windows.

WAVEGUIDE COMPONENTS AND TEST EQUIPMENT

ARRANGED BY FUNCTION AND WAVEGUIDE SIZE

Waveguide Frequency Range	8.2-12.4 kmc/s	12.4-18.0 kmc/s	18.0-26.5 kmc/s	26.5-40.0 kmc/s	50.0-75.0 kmc/s
Waveguide Type	RG-52/U	RG-91/U	RG-53/U	RG-96/U	RG-98/U
Waveguide Size	1 x 1/2	.702 x .391	1/2 x 1/4	.360 x .220	.228 x .154
Band	X	KU	K	KA	V
Waveguide Accessories					
E-Plane 90° Bends	MA-635 \$25	MA-632 \$28	MA-555 \$34	MA-556A \$39	MA-630 \$39
H-Plane 90° Bends	MA-636 \$25	MA-633 \$28	MA-553 \$34	MA-557A \$39	MA-631 \$39
Waveguide 90° Twists	MA-642 \$28	MA-643 \$28	MA-644 \$28	MA-558A \$28	MA-645 \$28
Waveguide to Type N Transition	MA-562B \$40				
Adaptors, special types				MA-550A/B/C/D \$30	MA-512 \$90 (Ridged to RG-98/U for MA-412 Crystal)
Adaptors, Double Choke Flange	MA-660A \$15	MA-661A \$15	MA-674A \$15	MA-675A \$15	
Adaptors, Double Cover Flange	MA-660B \$12	MA-661B \$12	MA-674B \$12	MA-675B \$12	
Power Dividers					
E-Plane (Series) Tees	MA-620 \$30	MA-616 \$32	MA-618 \$33	MA-560A \$40	MA-622 \$50
H-Plane (Shunt) Tees	MA-621 \$30	MA-617 \$32	MA-619 \$33	MA-561A \$40	MA-623 \$45
Hybrid Tees	MA-637 \$45	MA-638 \$48	MA-639 \$58	MA-640 \$70	MA-641 \$80
Magic Tees (Matched)	MA-541 \$75				
Rat Race Power Dividers	MA-524A/B \$100 (10, 20 db)	MA-569C \$150	MA-605 \$165	MA-538A/B \$175 MA-1036A/B/C, D \$167 (10, 15, 20, 25 db)	MA-606 \$375 MA-655 \$170 (10 db)
Directional Couplers (Branch Guide)					
Directional Couplers (Side Wall)	*MA-663A/B (20, 30 db)		MA-552A \$85 (30 db)	MA-662A/B \$110 (30, 40 db)	MA-668A/B \$110 (20, 30 db)
Detection & Power Measurement Instruments					
Crystal Mounts (Fixed Tuned)	MA-536/A \$70 (for 1N23)		MA-1043A/B \$105 (for 1N26)	MA-513C \$85 (for 1N53)	MA-607A/B \$80 (for MA-401)
Crystal Mounts (Fixed Tuned)	MA-611 \$125 (for MA-408)	MA-595 \$110 (for 1N78)		MA-1028A/B \$110 (for 1N53)	
Crystal Mounts (tunable)	*MA-536C (for 1N23)		MA-1039A/B \$140 (for 1N26)	MA-539A/B \$140 (for 1N53)	MA-669 \$175 (for 1N53/MA-571)
Water Load Calorimeters				MA-101A/B \$790	MA-102 \$820
Water Load Calibrator				*MA-103	*MA-103
Tunable Thermistor Mounts (With Thermistor)				MA-525A \$220	
Bolometers:					
Barreters		*MA-672 (1N78 Geometry)	*MA-673 (1N26 Geometry)	MA-571 \$20 (1N53 Geometry)	
Thermistors	MA-677 \$10 (1N23 Geometry)	*MA-666 (1N78 Geometry)	*MA-665 (1N26 Geometry)		
Frequency Meters (Reaction Type)					
Narrow Band Frequency Meters	MA-548 \$110 (8.55-9.80 kmc/s)			MA-506 \$165 (34-36.5 kmc/s)	MA-1152 \$250 (68-73 kmc/s)
Wide Band Frequency Meters		MA-582A \$175	MA-588 \$175	MA-518 \$185	*MA-671
Attenuators & Terminations					
Fixed Pads (10, 20, 30 db)	MA-609A/B/C \$55	MA-577A/B/C \$60	MA-575A/B/C \$60	MA-576A/B/C \$65	MA-579A/B/C \$65
High Power Attenuators (6, 12 db)	*MA-554A/B				
Variable Attenuators	MA-534A \$65	MA-578A \$150	MA-586 \$150	MA-1023A \$160	MA-1151 \$195
Precision Variable Attenuators	MA-535 \$165	MA-580 \$195	MA-587 \$190	MA-527A \$198	*MA-670
Low Power Terminations	MA-648 \$25	MA-646 \$30	MA-629 \$34	MA-540B \$36	MA-626 \$40
Dummy Loads, Coaxial Crystal		MA-594 \$75 (simulates 1N78)	MA-1044 \$75 (simulates 1N26)	MA-1029B \$75 (simulates 1N53)	
Dummy Loads, High Power	MA-533 \$120		MA-551 \$120	MA-537 \$120	
Tuners & Standing Wave Detectors					
Adjustable Waveguide Shorts	MA-546 \$45	*MA-568	*MA-656	MA-567 \$41	*MA-597
Precision Adjustable Waveguide Shorts				MA-567A \$85	MA-597A \$95
High Power Roving Stub Tuners				MA-526 \$1075	
E/H Plane Tuners	MA-520 \$120	*MA-615	*MA-654	MA-559 \$125	*MA-598
Precision E/H Plane Tuners				MA-559A \$180	MA-598A \$210
Low Level Standing Wave Detectors				MA-1022A \$650, \$625	MA-584 \$900
High Power Standing Wave Detectors				MA-545A \$1075	
Antenna Components					
Precision Standard Horns	MA-647 \$100 (16 db)	MA-628 \$110 (20 db)	MA-653 \$110 (20 db)	MA-572 \$110 (25 db)	MA-627 \$150 (25 db)
Antenna Rear Feeds	MA-625 \$150	MA-624 \$150		MA-1046A \$150	
Rotary Joints		*MA-651		MA-1037A B C \$300, \$280, \$300	
RF Switches					
Precision RF Switches (Y Type)				MA-1041B \$310	
Rotary Crystal Shutters				MA-1034 \$185	
Radar System Components					
Balanced Mixers				MA-1026A/B \$310	MA-649 \$535
Double Balanced Mixers				MA-531A \$750	
Transition Harmonic Generator & Mixers				MA-519A \$250	
Duplexers			*MA-1030	MA-1032A/B \$200, \$180	
Radar RF Units				MA-1031 \$1875	
Echo Boxes				MA-0111 \$1200	
Spectrum Analyzer Adaptor				MA-530A \$600	
Test Benches				MA-1019 \$1390	MA-1018A \$1725
Circular Waveguide Equipment					
(Low Loss, High Power TE01 Mode)					
Circular Waveguide Terminations	*MA-659A	*MA-659D	*MA-659B	*MA-659C	
Circular Waveguide Rotary Joints	*MA-593A	*MA-593D	*MA-593B	*MA-593C	
Circular Waveguide Mode Absorbers	MA-589A \$375	MA-589D \$350	MA-589B \$310	MA-589C \$310	
Circular Waveguide Bends	MA-600A \$550	MA-600D \$410	MA-600B \$350	MA-600C \$350	
Circular Waveguide Transitions	MA-601A \$525	MA-601D \$430	MA-601B \$375	MA-601C \$375	
Circular Waveguide Male Connectors	MA-612A \$13	MA-612D \$12.50	MA-612B \$11.50	MA-612C \$11.50	
Circular Waveguide Female Connectors	MA-613A \$14	MA-613D \$13.50	MA-613B \$12	MA-613C \$12	

COAXIAL COMPONENTS (2.63-3.95 kmc/s) MA-543A/B Transition Waveguide to Type N \$75. MA-1143 (1) Right Angle Stub \$75. MA-1150 Magnetron Coupler for 4J61-4J64 Magnetrons \$110. MA-1142 (1) & (2) Probe Coupler \$90. MA-1141 (1) Fixed Power Divider \$90. MA-547 (2) Frequency Meter \$250. MA-1148 (2) Filter Cavity \$250. *MA-0220 Coaxial Rat Race RG-51/U.

WAVEGUIDE COMPONENTS (7.05-10 kmc) MA-563A Water Load with Heater \$350. MA-652A/B/C Fixed Pad Attenuator (10, 20, 30 db) \$50. *MA-676A/B Adaptors (Double Choke, Double Cover) \$15., \$12.

(1) For use with RG-44/U (7/8" Coaxial).

(2) For use with RG-8/U, RG-9/U RF Cable.

*Price and Delivery available upon request.

Data and prices subject to change without notice.

Terms: Net 30 days, F.O.B. Burlington, Massachusetts.

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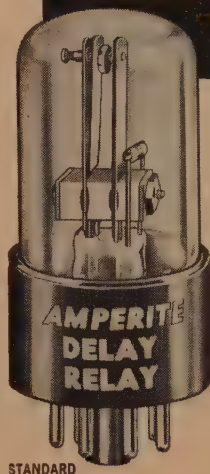
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*True Hermetic Sealing
assures Maximum Stability*

in **AMPERITE** **RELAYS and REGULATORS**

Simplest • Most Compact • Most Economical



STANDARD



MINIATURE

**PROBLEM? Send for
Bulletin No. TR-81**

Thermostatic **DELAY RELAYS** **2 to 180 Seconds**

- Actuated by a heater, they operate on A.C., D.C., or Pulsating Current.
- Hermetically sealed. Not affected by altitude, moisture, or other climate changes.
- SPST only — normally open or normally closed.

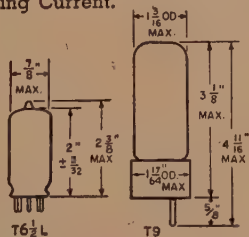
Amperite Thermostatic Delay Relays are compensated for ambient temperature changes from -55° to $+70^{\circ}$ C. Heaters consume approximately 2 W. and may be operated continuously. The units are most compact, rugged, explosion-proof, long-lived, and — inexpensive!

TYPES: Standard Radio Octal, and 9-Pin Miniature

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Amperite Regulators are designed to keep the current in a circuit *automatically regulated* at a definite value (for example, 0.5 amp.) ... For currents of 60 ma. to 5 amps. Operate on A.C., D.C., Pulsating Current.



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Write for 4-page Technical Bulletin No. AB-51

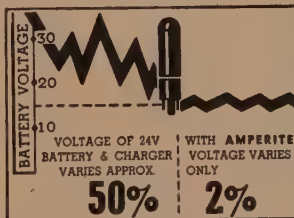
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561 Broadway, New York 12, N. Y.

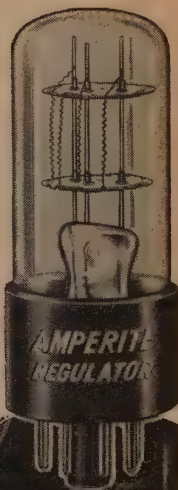
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T9 BULB



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HIGH VOLTAGE

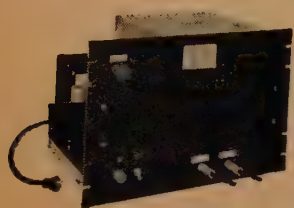
RF TYPE POWER SUPPLIES



MODEL 2040 40 KV DC POWER SUPPLY

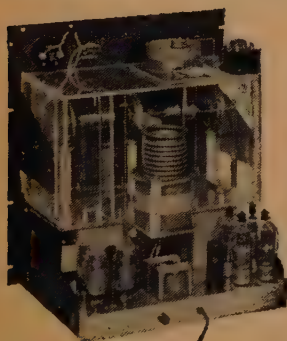
A ruggedly built RF type power supply which is in constant use in laboratories and industrial plants throughout the world for condenser charging, electrostatic spraying and stress testing, etc. In wide use for spot knocking by TV tube manufacturers. Nothing finer available at five times the price. Designed for constant use and will stand severe abuse. Available with either positive or negative 40 KV output. Voltage range of approx. 15 to 40 KV. The 15 to 40 KV variance in voltage is controlled through a knob on the front panel. If required for TV use, a voltage output of approx. 4 to 6 KV is available through a tap. Voltage supplied through a 6 ft. HV Safety Cable. Specify desired polarity when ordering. 19" wide x 12 1/4" high x 13" deep.

With HV meter installed in front panel.....\$150.00 Net
\$50 additional



MODEL PN-30R REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 1-30 KV UNREGULATED DC POWER SUPPLY

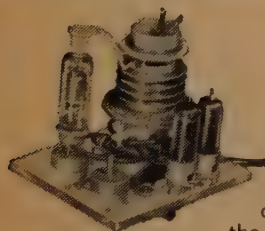
A light, compact unit in wide use for insulation testing, precipitators and laboratory research. Polarity reversible from front panel. Current output—approx. 2 milliamperes at 20 KV; 250 microamperes at 30 KV. Input—110V AC 60 cycles. Dimensions: 19" x 12 1/4" x 13"\$205 Net
With meter installed on front panel.....\$50 additional



MODEL PN-60 REVERSIBLE POLARITY RF TYPE DC POWER SUPPLY

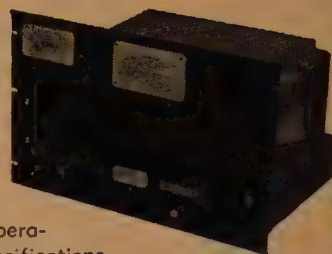
Polarity changes made on front panel. Continuously variable from 0 KV to 60 KV. Current output 1 milliamperes at 60 KV. Overall Dimensions 22 1/2" x 21" x 15". Ideal for electrostatic paint spraying, capacitor charging and testing as well as many other uses.

PN-60 Complete with Meter
\$675.00 Net



MODEL 4575 4 1/2 KV POWER SUPPLY

This compact, well designed, ruggedly built DC supply utilizes two 6AQ5 tubes as a parallel oscillator feeding a 1X2 rectifier tube. For an output voltage of 4 1/2 KV DC at 1 milliamperes, the low voltage input requirement is 250 V at 50 milliamperes. By varying the DC input the output voltage can be varied from approx. 1 KV to 7 1/2 KV. Dimensions: 5 5/8" high x 5" deep x 4 1/4" wide. In completely enclosed metal housing (not shown). Less low voltage DC supply.....\$32.50 Net



MODEL LAB-30PN • REVERSIBLE POLARITY—Continuously Variable 1 to 30 KV

Regulated DC Power Supply with regulations of 0.5% at 1 milliamperes. Although rated at 1 ma. this unit is capable of 2 ma. operation within regulation specifications.

This 16 tube unit is of the RF type consisting of a separate oscillator and buffer feeding the power oscillator into a doubler rectifier. Regulations accomplished through feed-back into a DC amplifier plus simultaneous output control of the buffer. Polarity reversible from front panel. Standard Rack Model—19" wide x 12" high x 13" deep. Standard Bench Model—21" wide x 14" high x 15" deep.

With Meter \$645 Net—Less Meter \$595 Net

MODEL LAB-30 is a positive polarity output regulated High Voltage DC Power Supply with same electrical characteristics and dimensions as the LAB-30PN. Available in either positive or negative polarity.

With Meter \$545 Net—Less Meter \$495 Net

MODEL RG-30

Continuously Variable 15-30 KV Regulated DC Power Supply With Regulated Focus Voltage Tap

A high grade supply which incorporates a voltage tap in the range of 4 to 6 KV for use with 5WP15, 5TP4 and flying spot tubes. Regulations better than .5% at 1 milliamperes. In wide use for color tube development work, transcription recording systems. 19" wide x 12" high x 13" deep.

\$295 Net

With meter installed on front panel.....\$50 additional

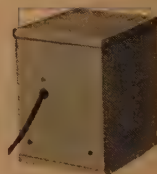


MODEL RG-40—Same specifications as above except high voltage range is approx. 15 KV to 40 KV. In wide use in projection television systems\$295 Net
With meter installed on front panel.....\$50 additional

MODEL 7512—7 1/2 KV POWER SUPPLY

Voltage output of approx. 7.5 to 12 KV. 1 ma. of current may be drawn throughout the voltage range. To obtain an output voltage of 7.5 KV at 1 ma., low voltage input requirement is 300 V DC at 50 ma. By varying the DC input, the output voltage can be increased. Maximum input voltage of 425 V at 100 ma. will give an output of 12 KV at 1 ma. 5 3/4" W., 8 1/4" H., 6 3/4" D.

\$42.50 Net



MODEL LAB-60 Continuously Variable 0-60 KV DC Regulated Power Supply

Current output 1 ma. at 60 KV. 2 ma. may be drawn from 50 KV to 0. Supplied with either positive polarity or negative polarity output. Regulation stability—1% at 1 ma. 21 3/4" wide x 22 3/4" high x 15 1/2" deep.

LAB-60 Complete with meter...\$695.00 Net
LAB-60 PN Reversible polarity model of above \$745.00 Net



SPELLMAN

TELEVISION CO., INC.

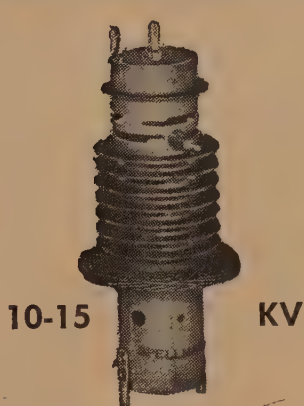
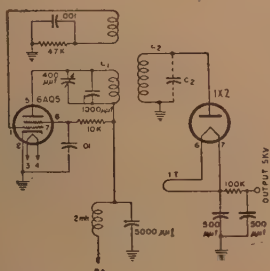
3029 WEBSTER AVENUE
N.Y. 67, N.Y. Kingsbridge 7-0306

HIGH VOLTAGE

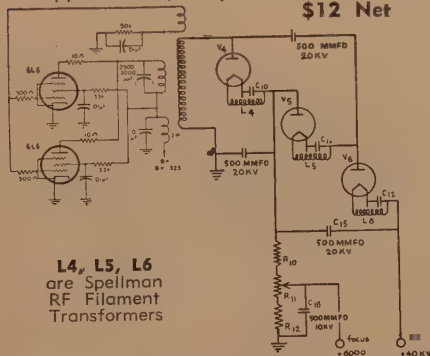
RF STEP-UP COILS



Secondary Height 3½"
 Secondary Windings 1¾"
 Consisting of 4 Pie Windings
 Primary Diameter 2¼"
 Secondary Voltage Output..5 KV
 Secondary Current .2 Milliamperes
 Approx. Frequency.....300 KC
\$7.00 Net



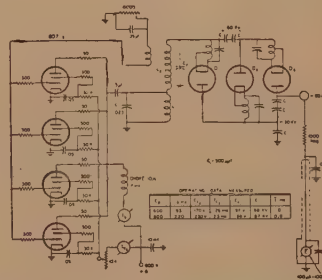
Secondary Height 5¼"
 Secondary Windings 1¾"
 Consisting of 7 Pie Windings
 Diameter 2½"
 Secondary Voltage Output
 10-15KV
 Secondary Current .2 Milliamperes
 Approx. Frequency...175 KC
\$12 Net



L4, L5, L6
 are Spellman
 RF Filament
 Transformers



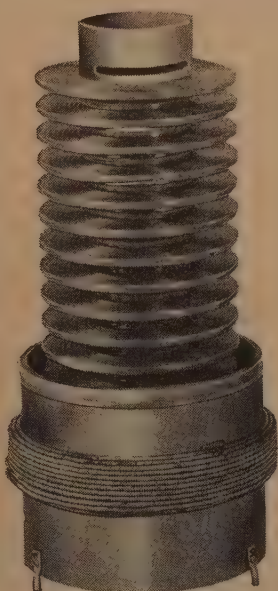
Secondary Height 7"
 Secondary Windings 3" dia.
 Consisting of 10 Pie Windings
 Primary (separate from secondary)
 Height 4"
 Diameter 4¼"
 Secondary Voltage Output..35 KV
 Secondary Current .5 Milliamperes
 Approx. Frequency 70KC
\$42.00 Net
25KV—Same as 35 KV except
 Secondary Height 6"
\$36.00 Net



O1, O2 and
 O3 are RCA
 type 5825
 tubes.

70 KV RF STEP-UP COILS

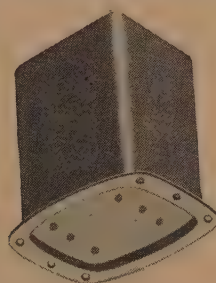
Secondary Height 10"
 Secondary Windings.....4" dia.
 Consisting of 12 Pie Windings
 Primary (separate from secondary)
 Height 4"
 Diameter 5"
 Secondary Voltage Output..70 KV
 Secondary Current .5 Milliamperes
 Approx. Frequency 70 KC
\$75.00 Net



RF FILAMENT TRANSFORMERS

A self-resonant auto transformer for use with type 1B3 Rectifier tube. Will operate with Spellman HV calls.....**\$1.50**
TUNING PADDER for Filament Transformer.....**0.58**

ULTRASONIC CERAMIC TRANSDUCER and MATCHING TRANSFORMER KIT



Designed to operate at 40 KC. Output transformer will operate from 16 or 500 ohm output of audio amplifier at 40 watts max. Furnished complete with operating instructions and information on how to mount barium titanate driver to metal tanks, rods, etc., using an epoxy resin which is supplied with ultrasonic kit.
 MODEL 16500**\$69.50**
 MODEL HP—Designed to operate from the plates of the output tubes**\$69.50**

SPELLMAN TELEVISION CO., INC.

**3029 WEBSTER AVENUE
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INSULATION FOR ELECTRONIC APPLICATIONS

SIL-THIN-GLAS AND SIL-THIN-BESTOS

Ideally suited for such electronic applications as wrapping of armatures, fields, stators, relays, transformers and coils. Insulating barrier where excessive moisture prevails. Layer insulation for motors and dry-type transformers. Features exceptional dielectric and tensile strength. Lightweight, thin and flexible. An EXTRA-THIN high temperature insulation available in rolls, sheet or tape form.

Property	Sil-Thin-Glas	Sil-Thin-Bestos
Gauge (inches)	.002 ± .0003	.0035
Weight (oz./sq. yd.)	2	2.3
Tensile (lb./in.) MD	19 (AMD 28)	6
Tear, in grams Elemendorf (MD)	90 (AMD 110)	55 (AMD 85)
Moisture Absorption	1% after 24 hr.	
Thermal Resistance	180°C (constant)	
Dielectric Strength (VPM)	2300	350

STICK-GLASS*: Used as wrapping for small coils where space is limited and holding down of wrapping is difficult. Ideal for toroidal coils. Class B cloth or tape with adhesive backing. Thicknesses .005"—.015". Dielectric strength of "A" glass (1300 vpm).

SUN-PLI—Asbestos paper combinations provide improved mechanical and electrical strength plus high moisture resistance.

SIL-GLAS—Class H sheets or tape. Uses: coil wrap or tape—slot cell insul.—layer insulation. Uses silicone resin and ground mica coats over Fiberglas cloth. Flexible, 200°C heat resistance, good abrasive resistance, 2.5 Dielectric constant at 25°C. ¼" diel. breakdown 5000V @ .003" to 10,000V @ .010". 1% power factor. Thicknesses .003"—.010".

ELASTOMERIC FIBERGLAS—Highly water repellent. Impregnated and coated with silicone rubber. Available cured or uncured. Uncured can be wrapped and baked at 360°F to an hermetic seal. Baking provides after-cure for tough, abrasive-resistant finish. Cured E-F has dielectric strength of 800 VPM @ 25°C for .007", and power factor of 0.7%. Constant operating temp. to 200°C. Flexible from -60°C to 250°C.

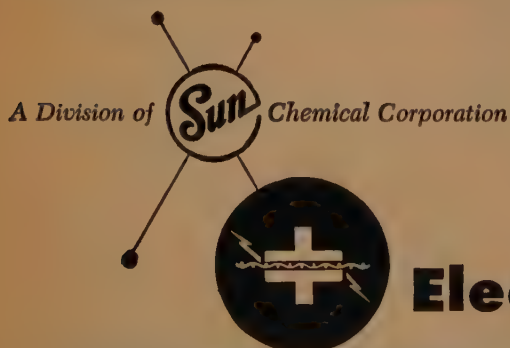
BI-GLAS—Class "B"—bias-woven Fiberglas tape for fast wrapping of coils, spirals, etc. Stretches and contour wraps without electrical loss, coning or air pockets. Excellent resistance to oils, acids, moisture, fungus and ozone. High thermal stability withstands high ambients.

Typical Properties—

(In accordance with A.S.T.M. Specifications where applicable)

Dielectric Strength	Gauge	.007-in.
Short-Time Test, ¼-in. electrodes	Tensile M.D.	100 lb./in.
V.P.M. as received 1,000	Base Glass	ECC-B302
V.P.M. after 5% 1,000		

ACTO-GLAS—woven Fiberglas cloth preimpregnated with polyester or silicone resin. Furnished only uncured in 36" rolls or tape. Dielectric strength to 700 VPM. Low moisture absorption, high impact resistance, high flexural strength. Gauges from .004" to .012". Can be formed, molded or laminated at contact pressure. Cures in 5-10 min. @ 250°-300°F under 30 lbs. pressure per sq. in., good resistance to acids, alkalies & moisture.



ALL ELECTRIC insulation is available from authorized distributors located in principal cities or from our own plant. For complete data and samples send your request to our Department E11-783. Special insulation problems will receive immediate attention in our modern, fully-equipped research laboratories.

*© Owens Corning Fiberglas Corp.

Electro-Technical Products

Nutley 10, New Jersey

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ELECTRONIC ENGINEERS

NEED MORE

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Two BUSINESS EDITIONS of ELECTRONICS, published on the 10th and 20th of each month, are providing business-minded electronic engineers with the marketing, topical and commercial information needed to keep abreast of today's complex electronic industry. The engineer who used to be concerned chiefly with designing a circuit or product now wants to know where and how it can be sold.

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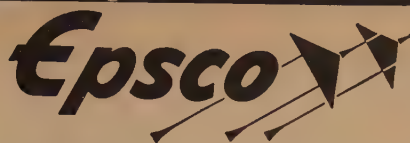
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electronics



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COMPONENTS

MAGNETIC STORAGE ELEMENTS

Subminiature magnetic storage elements feature small size, low power, reliability and rugged construction.

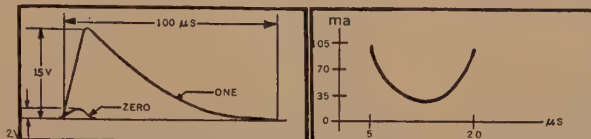
Epsco Magnetic Storage Elements Type SR-11 are designed for airborne and missile applications. Due to their extremely low power requirement, they may be driven by either subminiature tubes or transistors.

Measuring only $\frac{3}{4}$ " x $\frac{3}{4}$ " x $\frac{7}{16}$ ", these subminiature units are entirely suitable for mounting on etched wiring boards. Epsco SR-11 storage elements also offer the ad-

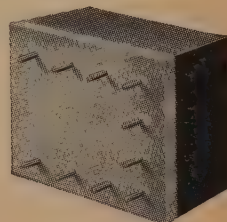
vantages of high ratio of storage elements to drive tubes. Wide operating limits and encapsulated packaging insure the ultimate in reliable performance.

SR-11 elements have an information rate design center of 10kc, with a practical upper information rate of 15kc. Peak power per shifted "one" at design center is only 0.5 watts.

Similar units available
for use up to 200 kc.
Write for data sheets

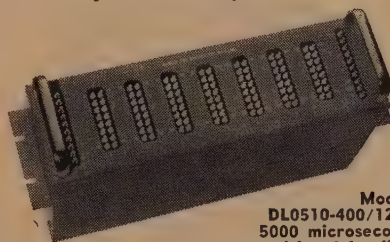


Typical Output Voltage Waveform Typical Drive Current Operating Limits



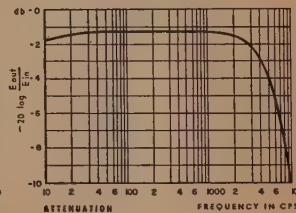
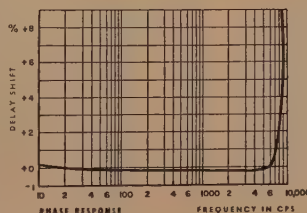
EPSCO 5000 MICROSECOND PRECISION DELAY LINE

Epsco offers delay lines covering frequencies from the sub-audio range to ultrasonic. Applications include telephone and communication lines, seismic exploration and sonar equipment. Delays up to 1/10 second are available. 5000-microsecond unit features long delay — low attenuation — excellent phase linearity.



Model
DL0510-400/125,
5000 microsecond
precision delay line

Epsco 5000 microsecond Precision Delay Lines Model DL0510-400/125 are specifically designed for use in precision analog computing, auto-correlation, function generation and sonic and sub-sonic applications. These units have found application in the study of speech waveforms, wow and flutter of tape-transport mechanisms, sonar returns, sonar ranging and servo analysis.

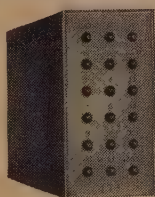


CHARACTERISTICS and SPECIFICATIONS

Overall Delay	5000 μs ± 1%
Characteristic Impedance	510 ohms*
Number of Taps	125
Delay between Taps	40.0 μs ± 1%
Attenuation including insertion loss	Better than 3db at 4kc Better than 6db at 7kc
Low Frequency Insertion Loss	1.7db
Cutoff Frequency	9.5kc
Phase Linearity	±0.2% up to 6kc ±1% up to 8kc
Size	19" x 5 1/4" x 9" for relay rack mounting
Weight	35 lbs.

*Also available with 470, 600, and 1,000 ohm impedance.

20.30 MICROSECOND DELAY LINE



If you use delay lines in telemetering, digital or analog computers, pulse circuits, coders and decoders, etc., you'll find this Epsco delay line of interest. It has been specifically developed for pulse encoding in data transmission links.

FEATURES:

- 20.30 microseconds — with end delays
- Taps every 1.45 microseconds
- Tap accuracy ±0.1 microseconds
- Rise time better than 0.7 microseconds
- Low attenuation — less than 4db overall
- Wide operating temperature range — will maintain above characteristics from -55°C to 105°C.
- Characteristic impedance 180 ohms for standard unit
- Light weight, small size — 2" x 4" x 8"
- Hermetically sealed
- MEETS MIL-T-945A SPECIFICATIONS

Epsco also builds a wide range of miniature pulse transformers.

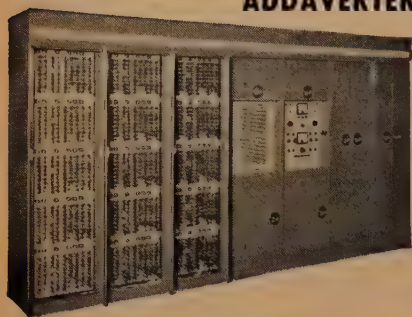


108 CUMMINGTON ST.

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please mention Electronics Buyers' Guide.

ADDAVERTER



The Epsco ADDAVERTER is a bi-lingual translator for linking a high-speed general-purpose digital computer, such as the IBM 704, and a general-purpose large-scale analog computer. The ADDAVERTER makes possible bi-directional communications between these computers, translating the digital language of one into the analog language of the other, and vice versa. Command control of linking system is with the program of the digital computer.

By integrating an analog and a digital computer into a single system, the ADDAVERTER provides a powerful computational tool for the solution of many types of dynamic problems. In a typical case, the analog computer is programmed by the digital computer, with the input variables for each analog operation being calculated from the results of the preceding analog operations.

Each converter within the unit has an over-all resolution of 18 bits for its bipolar range and a dynamic range of ± 17 binary bits. The complete analog-to-digital conversion of 18 bits is completed in 100 μ sec. The complete digital-to-analog conversion of 18 bits is completed in 25 μ sec. The accuracy of the ADDAVERTER is ± 0.05 per cent of the actual value. The dynamic range is greater than 10^6 .

FM Telemeter Analog-to-digital Conversion System

Numerous requirements exist for complete data processing systems capable of converting FM telemetering data on magnetic tape recordings to a digital

format suitable for further processing by a large digital computer. The Epsco FM telemetering analog-to-digital conversion system is designed to handle all of the accepted types of modulation and time multiplexing, operate on all of the standard sub-carrier frequency bands at various Modulation Indexes, and provide a practical method for obtaining accurate analog data plots for "quick look" observation and editing. The system is capable of searching out and locating any desired data on any channel at any time in accordance with the findings of the pre-edited information or from the command of the digital computer.

The system is capable of compensating for any speed variations in the magnetic tape recorder or for any drift or gain changes in the airborne sub-carrier equipment. It is also capable of transferring data to the digital computer directly via the computer high-speed input-output link as well as via the computer input tape mechanism. Changes in channel frequencies, filter values, and selection of the various modes of operation are accomplished remotely and, if necessary,

DATRAC — Reversible Voltage-to-digital Converter, Model B-611

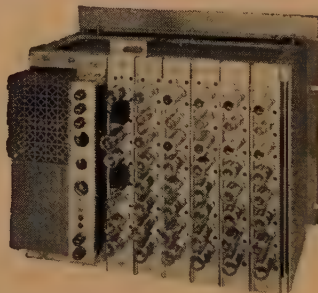


A high-speed, highly accurate voltage-to-digital converter capable of converting unknown input voltages to digital coded form at high speeds and at precise times. Approximately 45,000 independent data conversions per second for an 11-place binary code can be accomplished with an accuracy of better than $\pm 0.05\%$ $\pm \frac{1}{2}$ the least significant digit.

FEATURES

- **Proved reliability** — field service over 5000 hours continuous operation without maintenance or servicing.
- **Long-term stability** — all normal conditions of component aging, power-source variation, and operational shock and vibration will not affect encoded value by more than one least-significant digit for the life of the equipment.
- **Simplicity of operation** — except for the mode-of-operation selector and the power switch, there are no operator adjustments or controls on this equipment.
- **Versatility of data handling capabilities** — high conversion speed allows for many combinations of inputs, from a single 15 kc data-input channel (without multiplexing) to hundreds of data-input channels of lower frequency response when used with electronic and/or electro-mechanical multiplexers. The reversible feature allows it to convert either from analog to digital or digital to analog.
- **Serial and parallel outputs** — both a serial pulse train and a parallel output are provided for simultaneous transmittal over a radio or wire link and storage in a recording medium.

Electronic Multiplexer Model EM-51



This five-channel multiplexer is designed to time-multiplex five separate voltage inputs into a single output of sampled voltages. It is designed for full-range input levels from 1.0 to 100 volts. Input levels from ± 20 millivolts can be obtained through use of the associated Models DA-30 or DA-31 d-c amplifiers. Each of the five channels can be sampled at any rate up to about 4 kc. The rate and sequence of switching may be controlled by an external programmer, such as the Epsco Model MP-50 Multiplexer Programmer. The output of the EM-51 may be fed directly into DATRAC voltage-to-digital converter. Any number of units may be employed to handle additional channels; i.e., 10, 15, 20, 25, 30 channels. Since each channel is a separate plug-in unit, numbers of channels other than multiples of five can be obtained by including only the desired number.

FEATURES

- **High static accuracy** — due to incorporation of all switching functions within the feed-back loop of a high-gain chopper-stabilized d-c amplifier; the input-output ratio is determined by precision wire-wound resistors.
- **High dynamic accuracy** — the short effective sampling time of the amplifier, limited only by the turn-off time of the sampling switch, allows rapidly changing signals to be sampled with little loss in accuracy from signal change during sampling intervals.
- **Long-term stability** — is obtained through the combination of chopper-stabilized high-gain amplifiers and stable wire-wound resistors.

Secondary-standard Voltage-reference Source Model VR-607



A precision, ultra-stable voltage source which will provide any output voltage from $+211.112$ to -211.112 volts, selectable in steps of one millivolt by means of a series of decade switches. The guaranteed initial absolute accuracy of the reference voltage is 0.01%. The accuracy of the selectable output, relative to the reference output, is 0.01% of setting ± 500 microvolts. Model VR-607B is a similar equipment employing binary rather than decade selector switches.

FEATURES

- **Long-term accuracy** — continuous d-c reference outputs of ± 100.00 volts. Initial accuracy $\pm 0.01\%$; max. drift $\pm 0.02\%$ per year.
- **High resolution** — selectable output voltage from $+111.112$ volts to -111.112 volts in discrete steps of one millivolt. Vernier interpolation provides resolution of less than 10μ v.
- **Versatility of application** — this versatile, easy-to-use instrument is valuable as: a secondary standard for precision voltage measurement; a meter-and-transducer calibrator; an absolute reference source for analog computers; a standard reference for use with Epsco's DATRAC and ADDAVERTER Voltage-to-digital Conversion Equipment; a low-impedance precision attenuator.
- **High-quality components** — quality internal standard cell reference and ultraprecision resistors.

in DATA PROCESSING

automatically. The system operates without the necessity for any manual adjustments whatsoever to within an accuracy of 0.5 percent.

Pulse Code Modulation Telemetry System

The Epsco sub-miniaturized airborne voltage-to-digital converter MINIDATAC permits the encoding of data developed in airborne missiles or aircraft. By encoding the data into digital form while aloft and transmitting the data as sequential discrete pulses, the signal-to-noise advantage of PCM (Pulse Code Modulation) may be utilized, providing essentially error-free transmission of information. PCM offers the most accurate means of transmitting and recording multi-channel instrumentation data.

The Epsco PCM Telemetry System affords a means of encoding multiple inputs, while in the air, to an absolute accuracy of approximately 0.1%, recording the data on an airborne digital tape recorder or transmitting the data by means of an r.f. link to a recorder on the

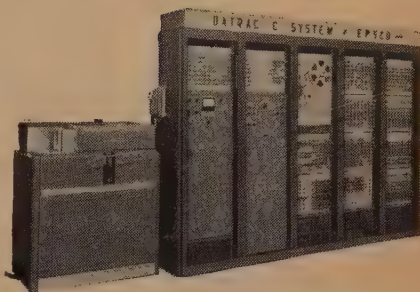
ground. The data can be obtained in various formats suitable for processing by a digital computer.

In addition to the accuracy and ease of entry into digital computers afforded by this method of data acquisition, the system permits flexibility in allocating channel bandwidth and is capable of re-converting the digital data accurately into analog form at the ground station. Controlling the speed of the digital magnetic tape transport during playback through a digital-to-analog converter, permits the time scale of the original analog inputs to be compressed or expanded, as desired.

The DATRAC C 700 System

The DATRAC C 700 System is designed to provide rapid acquisition and digital recording of quasi-static and dynamic input data from as many as 400 separate sources. The overall system has a conversion rate of 1250 independent conversions a second, and individual channels can be sampled at any rate up to 50 times a second.

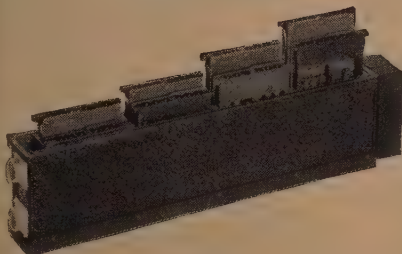
Various input functional units of the system may be arranged to provide



from one to four hundred input channels, either single-ended or differentially connected, and having full-scale ranges of ± 10 millivolts to ± 100 volts. The input data are converted into numerical form, either binary coded decimal or straight binary representation.

The digital data are recorded directly on magnetic tape with appropriate block or time codes. Magnetic tape formats available in the system allow direct tape input to the IBM 650 or 700 series computers and provide for IBM card output through use of a separate tape-to-card converter.

MINIDATAC Sub-miniature Voltage-to-digital Converter Model SVD-610

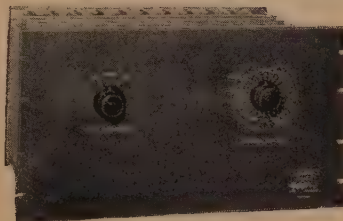


The Epsco MINIDATAC is a high-speed, highly accurate voltage-to-digital converter, designed and packaged for airborne use under severe environmental conditions. It provides an accuracy of better than 0.1% without adjustments or calibration, and a maximum speed of approximately 50,000 data point conversions per second.

FEATURES

- **Simplicity of Operation** — There are no operator adjustments on this equipment except for a scale-factor adjustment.
- **Versatility** — this equipment may be used to transmit data serially over a radio or wire link (pulse code modulation) or to record data in parallel on a storage medium such as a magnetic tape recorder. The high conversion speed allows for many combinations of inputs from a single 16.3 kc data input channel to hundreds of lower response data inputs when electronic and/or electro-mechanical multiplexing is used.
- **Reliability** — extremely conservative computer design coupled with the most advanced sub-miniature packaging techniques have resulted in an equipment of highest reliability.
- **Long-term stability** — stability for all conditions of component aging, power-source variation, and operational shock and vibration will not affect the encoded value by more than one least significant digit for the life of the equipment.

FM-to-Voltage Converter FM-108



Designed to provide an ultra-stable, dynamically accurate and inherently reliable data converter for use in telemetry receiving installations and data processing systems. Each converter can be operated on any one of the 23 IRTWG bands by a front-panel selector switch or from a remotely located band-switch.

FEATURES

- **Accuracy** — the absolute accuracy of the converter is better than 0.05% and the dynamic accuracy, from the input to the associated band-pass filter through the low-pass output filter, is better than 0.2%.
- **Long-term stability** — converter design allows accuracy and performance characteristics to be met for the life of the equipment without any manual corrections for component aging, drift, gain variations.
- **Simplicity of operation** — there are no adjustments or controls on the equipment other than the channel selector and zero and 100% data calibrator switch.
- **Wow and flutter compensation** — automatic compensation of wow and flutter components from magnetic tape recordings is accomplished by use of an Epsco FM-106 Velocity Deviation Detector and Epsco CD-601 Velocity Deviation Compensation distributor.
- **Dynamically accurate selectable low-pass filters** — a unique 5-pole filter design utilizing precision wire wound resistors and ultra-stable polystyrene capacitors in combination with chopper-stabilized d-c amplifiers provides: linear phase characteristics, a pass band which is flat within ± 0.1 percent (0.01 db) to F_c , and a minimum attenuation of 54 db of nearest beat frequencies between sub-carrier channels. A total of 62 different low-pass filter bandwidths are selectable from 11 cps to 3,490 cps.

All-channel Sub-carrier Oscillator Model VCO-718



An extremely linear, stable, self-contained, voltage-controlled oscillator that can provide an output signal on any of the 23 IRTWG telemetry bands. Contains a novel, direct-coupled, free-running multivibrator that inherently yields symmetrical operation. The basic technique used is that of alternately switching precision-controlled currents into matched, stable capacitors, the value of which, together with the magnitude of the voltage-controlled switching current, determines the period of the cathode-coupled multivibrator. Channel switching is accomplished by changing the magnitude of the current.

FEATURES

- **Linearity** — non-linear deviation from a mean straight line, over the entire frequency-deviation range for most channels, does not exceed 0.03%.
- **Stability** — precision components and military-type tubes are used throughout the equipment. The deviation control and vernier frequency control are instrumented with precision, multi-turn potentiometers.
- **Simplicity of operation** — switching to any one of the 23 IRTWG channels is fully accomplished by a rotary selector switch.

In the East, contact Fred S. Korb
108-03 Queens Blvd., Forest Hills 75, New York
Tel: Boulevard 1-7042

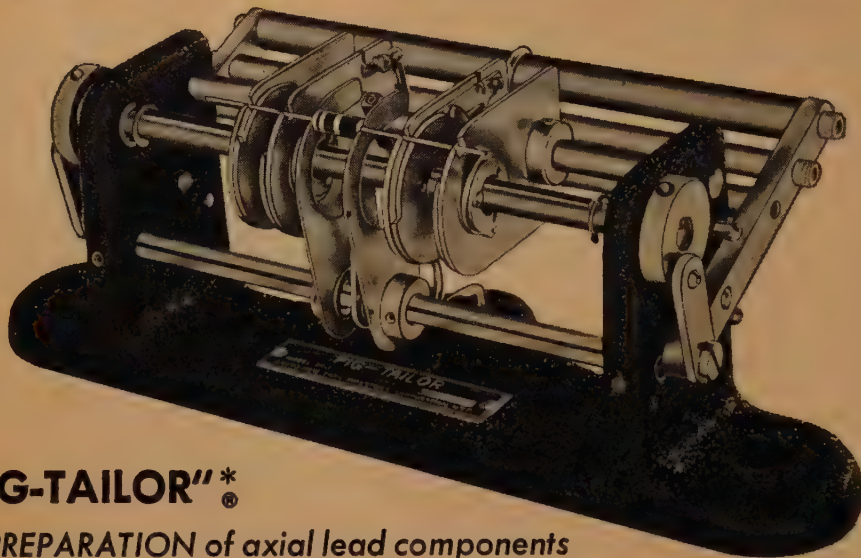
In the West, contact Epsco Serv. Corp. of Calif.
1722 Westwood Blvd., Los Angeles 24, Calif.
Tel: Granite 7-1754



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BOSTON 15, MASSACHUSETTS

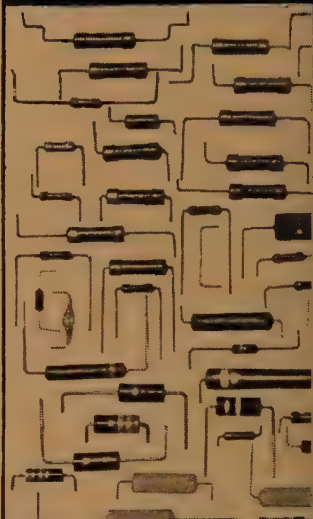
PROVEN-on the assembly line!



"PIG-TAILOR"*

For PREPARATION of axial lead components

**PREPARED
COMPONENTS
IN SECONDS
WITH THE
"PIG-TAILOR"**



"PIG-TAILORING"

... a revolutionary new mechanical process for higher production at lower costs. Fastest PREPARATION and ASSEMBLY of Resistors, Capacitors, Diodes and all other axial lead components for TERMINAL BOARDS, PRINTED CIRCUITS and MINIATURIZED ASSEMBLIES.

The "PIG-TAILOR" plus "SPIN-PIN"—accurately MEASURES, CUTS, BENDS, EJECTS & ASSEMBLES both leads simultaneously to individual lengths and shapes—3 minute set-up—No accessories—Foot operated—1 hour training time.

PIG-TAILORING provides:

1. Uniform component position.
2. Uniform marking exposure.
3. Miniaturization spacing control.
4. "S" leads for terminals.
5. "U" leads for printed circuits.
6. Individual cut and bend lengths.
7. Better time/rate analysis.
8. Closer cost control.
9. Invaluable labor saving.
10. Immediate cost recovery.

PIG-TAILORING eliminates:

1. Diagonal cutters!
2. Long-nose pliers!
3. Operator judgment!
4. 90% operator training time!
5. Broken components!
6. Broken leads!
7. Short circuits from clippings!
8. 65% chassis handling!
9. Excessive lead tautness!
10. Haphazard assembly methods!



**FOR
ASSEMBLY**

"SPIN-PIN"*

Close-up views of "SPIN-PIN" illustrate fast assembly of tailored-lead wire to terminal.



* PATENT
PENDING

Write for illustrated, descriptive text on "PIG-TAILORING" to Dept. BG-6

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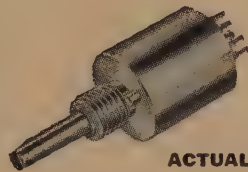


DeJUR precision potentiometers

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BEST ANSWER
TO YOUR
DESIGN
PROBLEMS**

SERIES C-050

SUB-MINIATURE $\frac{1}{2}$ " • SEALED CONSTRUCTION

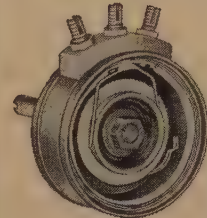


ACTUAL SIZE

- One piece nickel plated bronze case and bearing.
- Electrical rotation— 320° ; Mechanical rotation— 325° , or continuous 360°
- Voltage breakdown—1000 volts AC.
- Threaded bushing mounting.

SERIES C-078

MINIATURE $\frac{3}{8}$ " • GANGED MULTIPLES • INDEPENDENT PHASING



ACTUAL SIZE



- Unit height $\frac{3}{8}$ "; weight $\frac{1}{2}$ oz.
- Independent linearity: $\pm 1\%$ is standard.
- Linear or non-linear windings on flat card; res. tol. $\pm 5\%$ std., $\pm 1\%$ on order.

SERIES C-158

INTERMEDIATE $1\frac{1}{2}$ " • GANGED MULTIPLES • INDEPENDENT PHASING

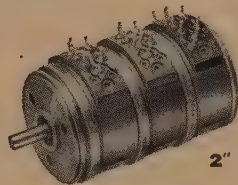


$\frac{1}{2}$
ACTUAL SIZE

- Independent linearity: $\pm 0.5\%$ of total resistance is standard.
- Linear or non-linear windings std., $\pm 1\%$ on order.
- on flat card; res. tol. $\pm 5\%$
- Rotation: electrical — 320° . Mechanical— 325° .

SERIES C-200 (sleeve bearing) BC-200 (ball bearing)

IN-FIELD GANGING • UNLIMITED MULTIPLES • ADJUSTABLE TAPS



2" DIAM.

- Resistance $\pm 5\%$ standard; to $\pm 1\%$ on special order.
- Linearity: $\pm 0.5\%$ independent linearity is standard; $\pm 0.3\%$ on special order for C-200; $\pm 0.2\%$ on special order for BC-200.
- Mounting: Servo type or single hole mounting with optional non-turn device.

SERIES C-300

SINE-COSINE

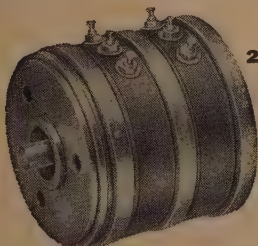


3" DIAM.

- Independent brush contacts produce accurate sine and cosine outputs.
- Function accuracies of $\pm 1\%$ are standard.
- Multiple ganged units are available.

SERIES KS-200 (sleeve bearing) K-200 (ball bearing)

LONG FUNCTION ANGLES • CLAMP PHASING • HIGH RESOLUTION



2" DIAM.

- Resistance: linear, on triple Formvar-copper mandrel.
- Independent linearity: $\pm 0.5\%$ is standard; $\pm 0.1\%$ on order.
- K-200 pots are completely enclosed and may be used as single or multiple ganged units.

SERIES HP-200, HP-300, HP-500

HIGH RESOLUTION • LONG FUNCTION ANGLES • GANGING MULTIPLES



2", 3", 5"
DIAM.

- Linearity: $\pm 0.5\%$ standard to $\pm 0.1\%$ on order.
- Resistance: $\pm 5\%$ standard to $\pm 1\%$ on order.
- Rotation: 360° mechanical; $356^\circ \pm \frac{1}{2}^\circ$ electrical standard.

WRITE FOR COMPLETE TECHNICAL LITERATURE

Our engineering department can supply prototypes to meet unusual design specifications for tests and approval. Send us your specs for analysis. Electronic Sales Division, DeJUR-Amsco Corporation, 45-01 Northern Blvd., Long Island City 1, New York.

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*Featuring the most important
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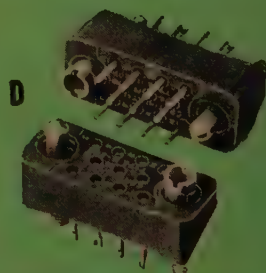
PRINTED CIRCUIT CONNECTORS with "BELLOWS ACTION CONTACTS"



MICRO-MINIATURE CONNECTORS ACTUAL SIZE



SUBMINIATURE CONNECTORS ACTUAL SIZE



Patent #2746022

PRINTED CIRCUIT CONNECTORS A) New Series PC "Bellows Action Contacts" grip printed circuit board over 100% of board contact area. Contacts in single or double rows permit up to 56 connections. AA) Right Angle Printed Circuit Pin and Socket Connectors for dip soldering to printed circuit boards. Available in 4, 8 and 19 contacts.

B) POLARIZING SCREWLOCKS to prevent accidental disconnection due to vibration now available in Series 20 Miniature and Series SM-20 Subminiature Continental Connectors.

C) SERIES 22 MICRO-MINIATURE Connectors offer the ultimate in miniaturization without sacrifice of performance. Available with 7, 11, 14, 20, 26, 29 and 34 contacts for #22 AWG wire. Rating: 3 amps; Voltage: 1800V. RMS.

D) SERIES SM-20. Model shown has 11 contacts for #20 AWG wire. Available in 7, 11, 14, 20, 26 and 34 contacts. Rating: 5 amps; Voltage: 1900V. RMS.

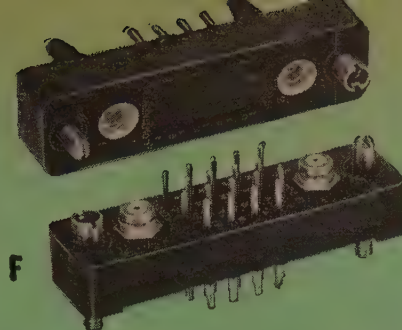
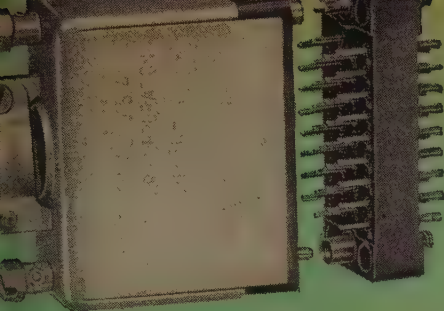
E) SERIES 20 MINIATURE CONNECTOR with Hood and Polarizing Screwlocks. Available with 7, 8, 9, 11, 14, 18, 20, 21, 26, 34, 40, 50, 75 and 104 contacts for #20 AWG wire. Rating: 5 amps; Voltage 2100V. RMS.

F) SERIES 20 with 50-ohm matched impedance coaxial contacts and 14 or 18 standard #20 contacts. Rating: 5 amps; Voltage 2100V. RMS.

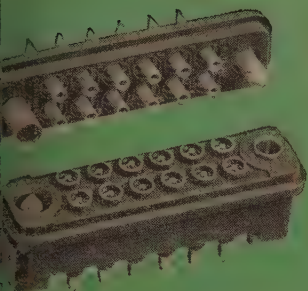
G) SERIES CCC 20 in stainless steel shells, recommended for airborne applications. 37 contacts for #20 AWG wire. (15 and 34 contacts on request.)

H) SERIES E-Z Easy Release Connectors with up to 34 solder cup or solderless taper pin contacts. Aluminum hoods, polarizing screwlocks and coaxial contacts available on order. Rating: 5 amps; Voltage: 4500V. RMS.

High precision, dependable Continental Connectors have achieved a reputation for excellence throughout the aircraft and electronics industries. The widest range of applications can be made from our standard line.



CONTINENTAL "SERIES 20" MINIATURE CONNECTORS

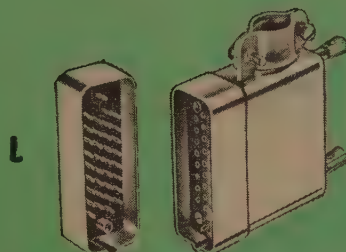


EASY RELEASE

Patent #2736870



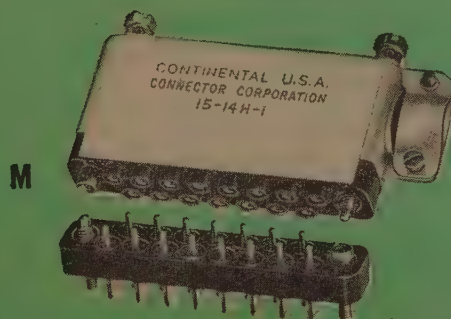
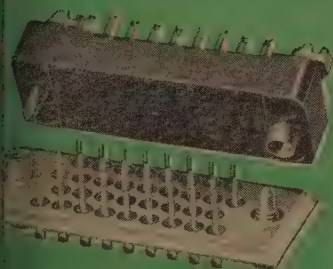
MINIATURE AN-TYPE



PROTECTIVE SHELLS

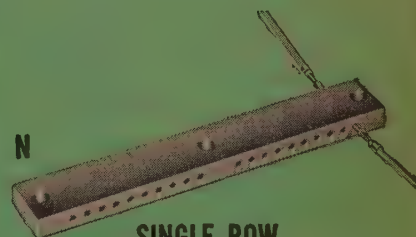


METRIC SEAL CONNECTORS

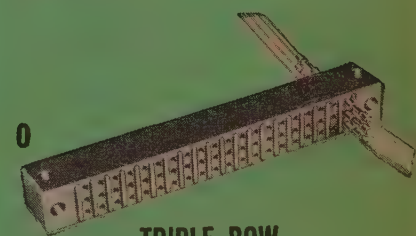


POWER CONNECTORS

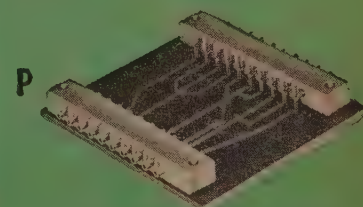
TAPER PIN TERMINAL BLOCKS



SINGLE ROW



TRIPLE ROW



RIGHT-ANGLE CONNECTOR

SERIES 1300 MINIATURE AN-TYPE Connector with one-piece mold inserts. Rating: 7.5 amps; Voltage: 3000V. RMS. Two sizes: 3, 4, 5 contacts, and 15, 19, 27, 31 contacts.

SERIES HC-20 HEXAGONAL Hermetic Plug has solid glass seal. Choice of 4, 5, 7, 9 and 10 contacts.

SERIES H-20 Hermetic Plug for #20 AWG wire. Contacts are individually compression sealed in glass. Fits Series 20 receptacles. With polarizing screwlock or guide pin and guide socket.

MOLDED ALUMINUM SHELLS give complete protection against physical damage on Miniature Series 20 and Subminiature Series 20. Obtainable with or without corrosion-resistant stainless steel polarizing screwlocks.

SERIES 14 Power Connector (illustrated with hood and polarizing screwlock.) Choice of 7, 9, 10, 15 or 18 contacts for #14 wire. Rating: 10 amps; Voltage: 4500V. RMS.

N) SERIES 145-58 Single Row Taper Pin Terminal Blocks. Available in any combination of feed-through shorting or non-shortening terminals. Molded holes for stacking or mounting.

O) SERIES 145-48 Triple Stacked Taper Pin Terminal Blocks. Continental will supply stacked taper pin blocks in any combination of feed-through shorting or non-shortening terminals. Molded holes for right angle and perpendicular mounting.

P) SERIES 145-60 Taper Pin Terminal Blocks for Printed Circuitry. Precision tapered molded-in right angle terminals for dip soldering to printed circuit boards.

For special designs and technical data sheets on these connectors write Electronics Sales Div., DeJUR-Amsco Corporation, 45-01 Northern Blvd., Long Island City 1, N. Y.

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I-S SPRINGS of beryllium copper can help you

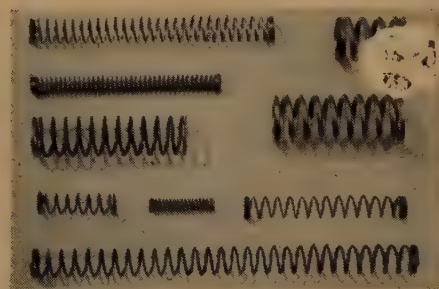
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HIGH
PRODUCTION**



STRIP SPRINGS

Fabricated from beryllium copper. Easily handled, readily broken apart by hand or used in automatic or semi-automatic assembling devices and contact riveting machines. Individual pieces may be broken off without trace of burr. Eliminate sorting, untangling and handling of loose pieces. Springs may be produced in strips to various shapes; formed angles may be held within plus or minus one degree. Heat treated in multiple fixtures to insure uniformity, close tolerances and elimination of variations in spring-back.

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Made from laboratory tested beryllium copper wire. Special coiling and heat treating equipment insures 100% uniformity. Guaranteed rigid tolerances held on diameter and load tests at specified deflection. These factors combine to assure increased service life through higher endurance strength — make products perform more consistently by eliminating drift, set or fatigue. Furthermore, they eliminate expensive hand adjustment and reduce inspection costs of finished product.

**FOR
LOW
ACTIVITY**



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We are equipped to supply standard mating parts for use with 2C-39, 2C-40, 2C-43 and 3C-37 tubes, or custom made parts in related fields. Grounding strips and contact fingers can be supplied in standard or special contours. "Flea" contacts for co-planer type subminiature tubes and transistors.

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For those who need quick delivery of parts in pilot quantities or require a low-cost proving ground for spring designs. I-S methods eliminate expensive tooling. Laboratory controlled, precision produced — yet at lower cost than is possible with permanent, high-activity tools.

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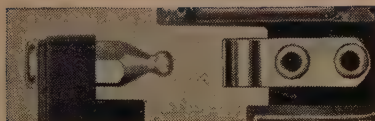


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into your product

with
**CAMLOC
FASTENING
DEVICES**

Modern product designs, production techniques and fabrication requirements demand more speed, more accessibility, more versatility in fasteners. In the electronics, aircraft, machinery and many other industries leading original equipment manufacturers call on Camloc's engineering department for fastener designs that help improve the product, decrease its cost and increase its sale.

Specify your needs for fasteners. These and other Camloc products offer modern solutions to modern design problems.

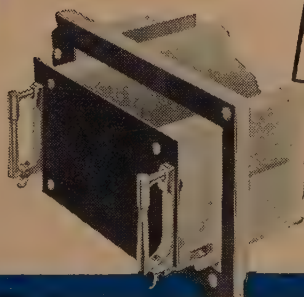


PRINTED CIRCUIT FASTENERS

This unusual fastener holds printed circuit boards in place with pull-out force of about 12 pounds. Consists of ball stud and two spring tempered steel clips. Stud also serves as attaching nut for contact plug mounting.

ELECTRONIC CHASSIS LATCH

Inexpensive, vibration-proof Chassis Latch of attractive design eliminates protruding attaching bolts and hole preparation... Opens and closes easily... provides leverage to overcome frictional loads of multiple contact plugs.



ACCESS DOORS

For flush-finished surfaces use these Camloc "captive" Access Doors. Opens by pushing with whatever tool is used to perform adjustments, closes automatically when tool is withdrawn. Standard size, $\frac{1}{4}$ " dia.



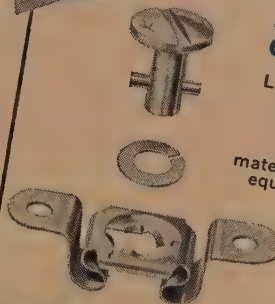
QUARTER-TURN FASTENERS

To get to the heart of the problem fast a quarter turn of this popular fastener is all it takes. Access panels, doors, other closures, open fast, close fast, hold fast! And because fewer fasteners are required to do any given job, Camloc Quarter-Turn Fasteners cost less to use.



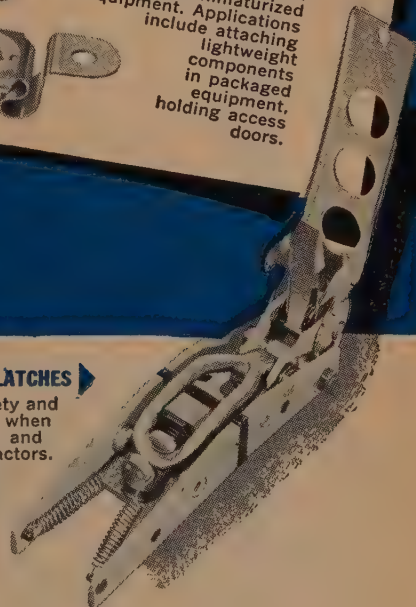
**5F SERIES
QUARTER-TURN FASTENERS**

Lightweight, low-cost 5F has all the features of standard Quarter-Turn Fasteners plus adaptability to thin materials and miniaturized equipment. Applications include attaching lightweight components in packaged equipment, holding access doors.



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For maximum safety and ease of operation when high shear-tension and heavy loads are factors. Long fatigue life under loads. Wide range of strengths and sizes fulfills a variety of requirements.



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BUYERS' GUIDE

GENERAL TRANSISTOR

MAXIMUM RATINGS AT 25°C

TYPICAL CHARACTERISTICS AT 25°C

General	Polarity	Transistor Dissipation (mW)	Collector to Base Voltage (V) (Emitter Open)	DC Collector Current (ma)	Peak Collector Current (ma)	Storage Temperature (°C)	AC Current Gain (Common Emitter) (B)	DC Current Gain (B)		Power Gain (dB)	Noise Figure (dB)	Collector Cutoff Current		Alpha cutoff Frequency (mc)	Collector Voltage (Volts)	Emitter Current (ma)	Applications
								Conditions	Gain			Conditions	(I_{CE})				
	PNP	125	25	100		85	28			36	16	VCB=10V	6		4.5	1	Audio, Gen. purpose
	PNP	125	25	100		85	42			40	16	VCB=10V	6		4.5	1	Audio, Gen. purpose
	PNP	125	25	100		85	15			32	16	VCB=10V	6		4.5	1	Audio, Gen. purpose
	PNP	125	25	100		85	75			42	<12	VCB=10V	6		4.5	1	Audio, Gen. purpose
	PNP	125	25	100		85	150			44	<12	VCB=10V	6		4.5	1	Audio, Gen. purpose
	PNP	125	25	100		85	75			42	16	VCB=10V	6		4.5	1	Audio, Gen. purpose
HS*	PNP	150	25	200		85	120			44	16	VCB=10V	6		4.5	1	Audio, Gen. purpose
	PNP	125	25	100		85	150			46	16	VCB=10V	6		4.5	1	Audio, Gen. purpose
	PNP	125	25	100		85	120			44	16	VCB=10V	6		4.5	1	Audio, matched pair
	PNP	125	12	100		85	20			30	30	VCB=10V	6		4.5	1	Audio, Gen. purpose
H	PNP	90	12	50		75	28			36	12	VCB=10V	6		4.5	1	Hearing Aid
H	PNP	90	12	50		75	42			40	12	VCB=10V	6		4.5	1	Hearing Aid
	PNP	90	12	50		75	80			42	12	VCB=10V	6		4.5	1	Hearing Aid
H	PNP	90	12	50		75	15-250			>34	>29	VCB=10V	<25		4.5	1	Hearing Aid
R	PNP	90	12	100		75	25			24 ϕ			6	2.5	4.5	1	R.F. & I.F.
	PNP	90	10	100		75	40			28 ϕ			6	5	4.5	1	R.F. & I.F.
R	PNP	90	10	100		75	70			32 ϕ			6	11	4.5	1	R.F. & I.F.
R	PNP	90	6	100		75	120			34 ϕ			6	17	4.5	1	R.F. & I.F.
+	PNP	125	25	200	500	85	35-49			40	16		10	<.7	4.5	1	Low Speed Computer
	PNP	125	25	200	500	85	38			36	16		10	.5	4.5	1	Low Speed Computer
	PNP	125	25	200	500	85	80			42	16		10				Low Speed Computer
2	PNP	125	25	200	500	85	80			42	16		10	1.5	4.5	1	Low Speed Computer
+	PNP	100	15	†		-55 to +85		IC=10ma VCE=5V	25-75			VCB=15V	<60				Low Speed Computer
8+	PNP	100	>20	200	500	-55 to +85	15			20 ϕ	16	VCB=15V	<5	<.5	4.5	1	Low Speed Computer
3+	PNP	100	>20	200	500	-55 to +85	30-150					VCB=20V	<6	>5	4.5	1	High Speed Computer
3+	PNP	100	>30	200	500	-55 to +85	>20					VCB=20V	<5				High Speed Computer
9+	PNP	100	25	200	500	-55 to +85						VCB=12V	<4	>4	4.5	1	High Speed Computer
9+	PNP	100	>20	200	500	-55 to +85	20			24 ϕ	16	VCB=15V	<5	.5 to 3	4.5	1	High Speed Computer
0	PNP	100	15	50		-55 to +85	40			28 ϕ	16		1	5	4.5	1	High Speed Computer
1	PNP	100	15	50		-55 to +85	75			32 ϕ	16		1	10	4.5	1	High Speed Computer
2	PNP	100	6	50		-55 to +85	100			34 ϕ	16		1	20	4.5	1	High Speed Computer
3	PNP	100	6	50		-55 to +85	120			35 ϕ	16		1	30	4.5	1	High Speed Computer
4+	PNP	100	>20	200	500	-55 to +85	200				16	VCB=15V	<5	>25	4.5	1	High Speed Computer
A	PNP	150	45	50		-55 to +85	32-65			>12	<20	VCB=45V	16	>.4	5	1	Military-Type
	PNP	150	45	50		-55 to +85	16-32			34-43	<33	VCB=45V	15	>.4	5	1	Military-Type
5	PNP	100	20	200	500	-55 to +85		IC=100ma VCE=.2V	20			VCB=5V	1	5	5	1	Switching computer
6	PNP	100	20	200	500	-55 to +85		IC=200ma VCE=.2V	30			VCB=5V	1	12	5	1	Switching computer
7	PNP	100	20	200	500	-55 to +85		IC=400ma VCE=.2V	30			VCB=5V	1	20	5	1	Switching computer
6	NPN	100	>30	200	500	-55 to +85		IC=100ma VCE=.25V	30			VCB=5V	<5	3	5	1	Switching computer
7	NPN	100	>30	200	500	-55 to +85		IC=200ma VCE=.25V	30			VCB=5V	<5	6	5	1	Switching computer
8	NPN	100	>30	200	500	-55 to +85		IC=300ma VCE=.25V	30			VCB=5V	<5	9	5	1	Switching computer
8/(GT-66)	PNP	50	12	20		85	100			42	20		10		4.5	1	Phototransistor
1HV	PNP	150	50	†		85	10			32	16		10		4.5	1	High Voltage
1N+	PNP	125	100	200	500	85	18					VCB=100V	<450		4.5	1	Neon light
1S+	PNP	125	40	200	500	-55 to +85	15			32	24	VCB=15V	15		4.5	1	Bi-directional
5/(2n35)+	NPN	100	25	100	200	-40 to +75	40			40	16	VCB=12V	12		5	1	Audio, Gen. purpose
29+	NPN	100	>10	200	500	-55 to +85	>10				30	VCB=10V	<10		5	1	Experimental Amateur
37+	NPN	100	25	200	500	85	>25					VCB=15V	<10	>5	5	1	High speed switching computer
2+	NPN	100	15	†		-55 to +85		IC=10ma VCE=5V	25-75			VCB=15V	<60				High medium speed switching computer
32+	NPN	100	20	100	200	-55 to +85		IC=5ma VCE=5V	37-160			VCB=5V	6	4.8	5	3	Switching computer
33+	NPN	100	20	200	500	-55 to +85		IB=1ma VCE=.2V	35-70			VCB=20V	<25				High & med. speed switching compute
34+	NPN	100	20	200	500	-40 to +75		IB=1ma VCE=.2V	>30			VCB=20V	<25	>4	5	1	High speed switching computer
35+	NPN	100	20	200	500	-55 to +85		IB=1ma VCE=.2V	20-40			VCB=20V	<25				High & med. speed switching compute
37+	NPN	100	15	200	500	-55 to +85		IB=1ma VCE=.2V	>40			VCB=10V	<25				High & med. speed switching compute
38+	NPN	100	20	200	500	-55 to +85		IB=1ma VCE=3.5V	>30			VCB=20V	<20	>4	5	3	High & med. speed switching compute
39+	NPN	100	30	200	500	-55 to +85		IB=1ma VCE=3.5V	>30			VCB=30V	<25	>.7	5	3	High & med. speed switching compute

plied with Heat Sink †Limited only by Collector Dissipation ϕ Frequency = 455KC ‡Preliminary Specifications — Subject to Revision at any Time by General Transistor Corp.
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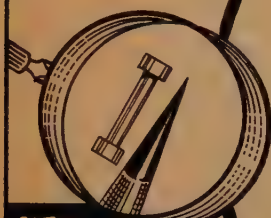
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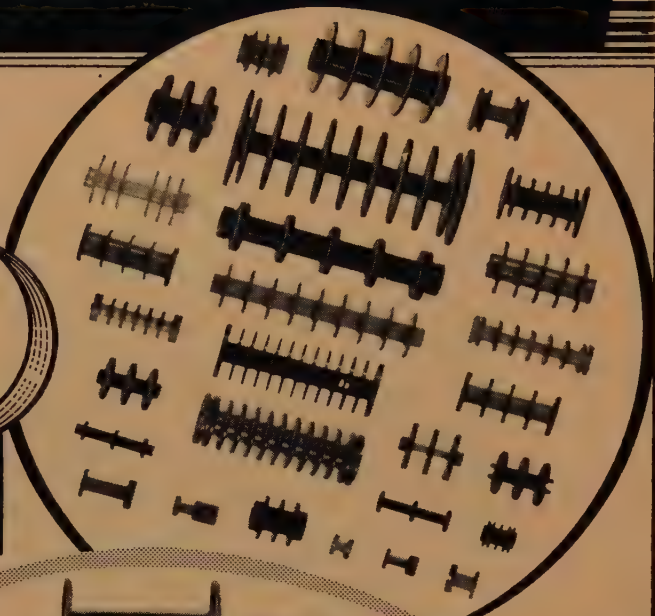
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Types and Specifications

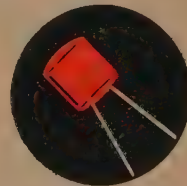
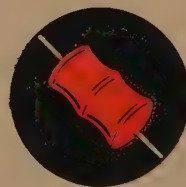
Type	Dia.	Length	Max. Ohms	Max. Watts
274	3/16	3/8	100K	0.25
273	1/4	5/16	400K	0.25
283	1/4	5/16	400K	0.25
284	1/4	27/64	.5 Meg.	0.25
250	1/4	1/2	900K	0.33
170A	7/16	1/2	1.2 Meg.	0.50
170	1/2	1/2	1.8 Meg.	0.50

Fully encapsulated • Meet and exceed all humidity, salt water immersion and cycling tests as specified MIL-R-93A, Amendment 3 • Operate at 125°C continuous power without de-rating • Can be obtained in tolerances as close as $\pm 0.02\%$ • Standard temperature coefficient is $\pm 20\text{PPM}/^\circ\text{C}$.



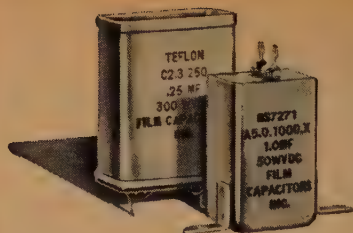
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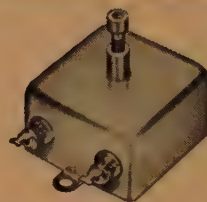
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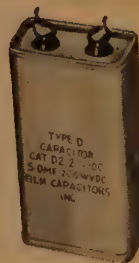
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	POLYSTYRENE	TEFLON	ADJUSTABLE	H.V.	TYPE D
Operating Temperature Range	-55°C. to +85°C.	-55°C. to +200°C.	Available with either polystyrene or teflon characteristics	-55°C. to +125°C.	-55°C. to +125°C.
Voltage Range, DC	100 to 30,000	100 to 30,000		2,000 to 60,000	100 to 1,000
Capacitance Range	.001 to 20 mf	.001 to 20 mf		.0001 to 0.1 mf	.0001 to 25 mf
Power Factor	.02% @ 1 kc	.02% @ 1 kc		0.3% @ 1 kc	0.3% @ 1 kc
Dielectric Absorption	.01%	.01%		0.1%	0.1%
Voltage Derating at 85°C.	none	none		30%	none
Voltage Derating at 125°C.	not operable	none		66%	30%
Voltage Derating at 150°C.	not operable	none		not operable	60%
Voltage Derating at 200°C.	not operable	33%		not operable	not operable
Temperature Coefficient	-100 ppm/°C.	-100 ppm/°C.		+500 ppm/°C.	+500 ppm/°C.
I.R. at Room Temperature	10 ⁴ megohms/mf	10 ⁴ megohms/mf		10 ⁴ megohms/mf	10 ⁴ megohms/mf
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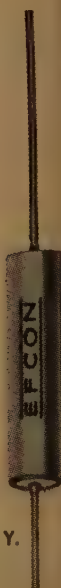
EFCON

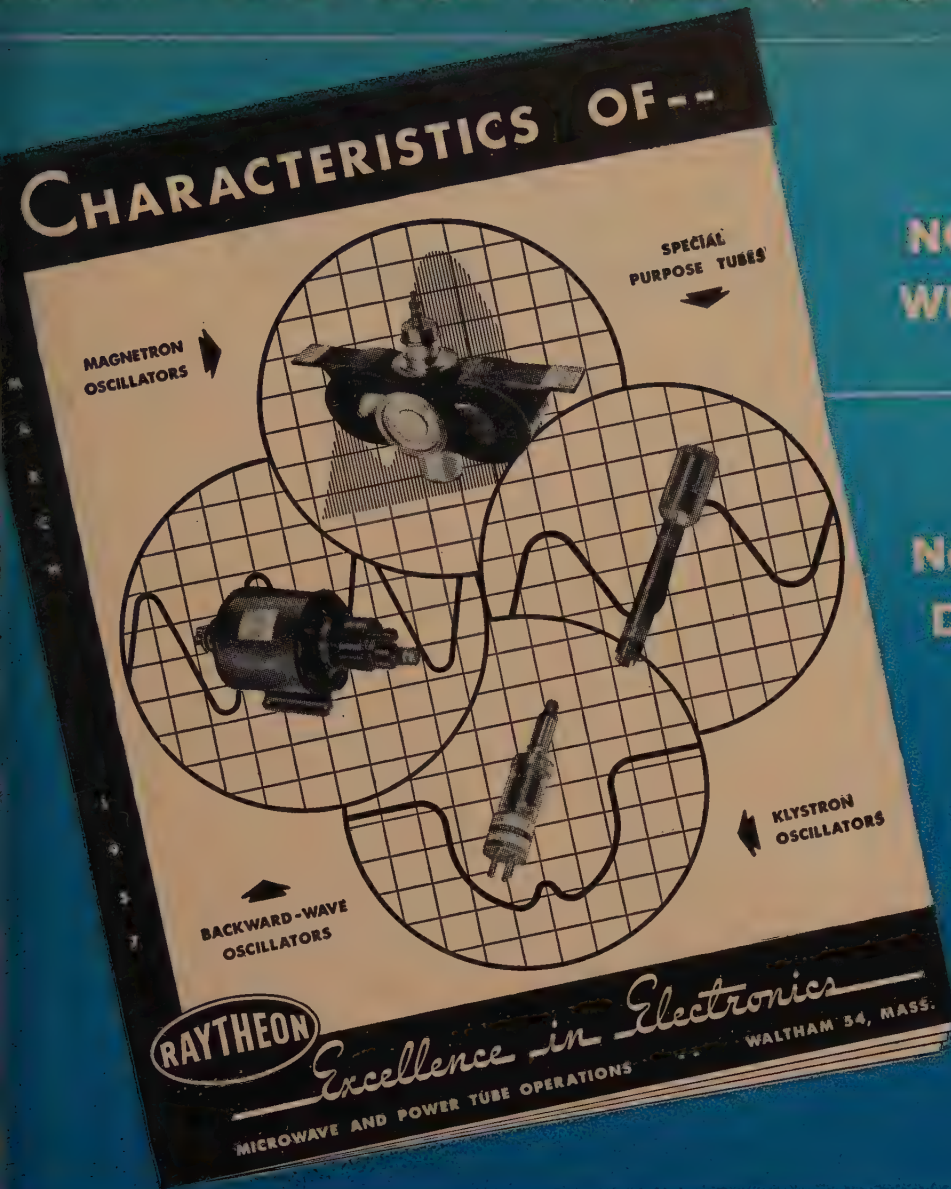
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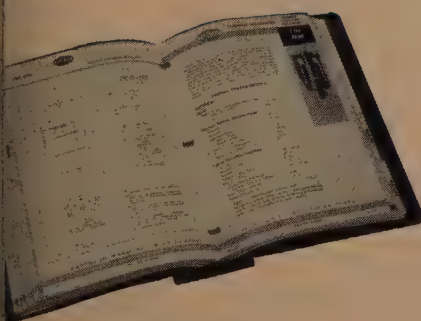
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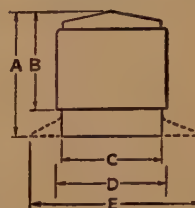
AVAILABLE MODELS for 1/4" shafts

Description	70 Series		90 Series		125 Series		175 Series		225 Series	
Style	Cat. No.	Std. Pkg.	Cat. No.	Std. Pkg.	Cat. No.	Std. Pkg.	Cat. No.	Std. Pkg.	Cat. No.	Std. Pkg.
Round	70-1-2	12	90-1-2	12	125-1-2	6	175-1-2	6	225-1-2	4
Skirted Round	70-2-2	12	90-2-2	12	125-2-2	6	175-2-2	6	225-2-2	4
Dial Skirted Round	70-3-2	12	90-3-2	6	125-3-2	6	175-3-2	2	225-3-2	2
Pointer	70-4-2	12	90-4-2	12	—	—	—	—	—	—
Skirted Pointer	70-5-2	12	90-5-2	12	—	—	—	—	—	—
Crank	—	—	—	—	125-6-2	4	175-6-2	2	225-6-2	2

Cat. Nos. above for mirror finish. For matte finish, add "G" to end of number.

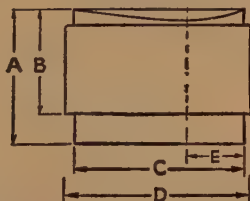
*Bar Knob—Cat. No. 1154-G1 (mirror), 1154-G2 (matte)

ROUND & DIAL



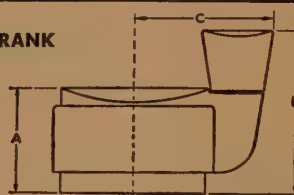
	Series A	B	C	D	E
70	.80	.62	.65	.72	1.14
90	1.03	.80	.83	.93	1.51
125	.87	.70	1.16	1.27	1.82
175	1.09	.85	1.67	1.77	2.45
225	1.11	.89	2.16	2.27	3.01

POINTER



Series	A	B	C	D	E
70	.80	.62	.94	1.06	.32
90	1.03	.80	1.23	1.38	.42

CRANK



Series	A	B	C
125	.87	1.38	1.09
175	1.09	1.77	1.50
225	1.11	1.80	1.75

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Standard Catalog Models

Catalog No.	Output Capacity Watts	Style	Dimensions in Inches			Mounting		Voltages		Net Wt. Lbs.
			L	W	H	L	W	Input	Output	
VR-6110	15	F	6 $\frac{1}{4}$	2 $\frac{5}{8}$	3	5 $\frac{1}{4}$	5 $\frac{7}{8}$	95-130	115	4
VR-61F0**	15	F	5 $\frac{3}{4}$	2 $\frac{5}{8}$	4 $\frac{1}{8}$	5 $\frac{3}{4}$	4 $\frac{1}{4}$	95-130	6.3	4
VR-61D0**	15	D	3 $\frac{1}{8}$	2 $\frac{5}{8}$	4 $\frac{1}{8}$	2 $\frac{1}{4}$	1 $\frac{3}{4}$	95-130	6.3	6
VR-6710**	25	W	7 $\frac{3}{8}$	3 $\frac{1}{8}$	3 $\frac{3}{8}$	7 $\frac{3}{8}$	1 $\frac{1}{2}$	95-130	6.0	4
VR-6101	30	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{1}{8}$	6 $\frac{1}{8}$	2 $\frac{1}{4}$	95-130	6.0/7.5	5
VR-6111	30	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{1}{8}$	6 $\frac{1}{8}$	2 $\frac{1}{4}$	95-130	115	5
VR-6111-CP	30	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{1}{8}$	6 $\frac{1}{8}$	2 $\frac{1}{4}$	95-130	115	5
VR-6221	30	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{1}{8}$	6 $\frac{1}{8}$	2 $\frac{1}{4}$	190-260	230	5
VR-6112***	60	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{3}{8}$	6 $\frac{1}{8}$	2 $\frac{1}{4}$	95-130	115	8
VR-6112CP†	60	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{3}{8}$	6 $\frac{1}{8}$	2 $\frac{1}{4}$	95-130	115	8
VR-6222	60	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{3}{8}$	6 $\frac{1}{8}$	2 $\frac{1}{4}$	190-260	230	8
VR-6113***	120	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	5 $\frac{1}{8}$	6 $\frac{1}{8}$	2 $\frac{1}{4}$	95-130	115	14
VR-6113CP†	120	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	5 $\frac{1}{8}$	6 $\frac{1}{8}$	2 $\frac{1}{4}$	95-130	115	14
VR-6223	120	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	5 $\frac{1}{8}$	6 $\frac{1}{8}$	2 $\frac{1}{4}$	190-260	230	14
VR-6114	250	E	12 $\frac{3}{8}$	5	7 $\frac{3}{8}$	11 $\frac{1}{8}$	3 $\frac{1}{2}$	95-130	115	25
VR-6224	250	E	12 $\frac{3}{8}$	5	7 $\frac{3}{8}$	11 $\frac{1}{8}$	3 $\frac{1}{2}$	190-260	230	25
VR-6115	500	E	12 $\frac{3}{8}$	5	7 $\frac{3}{8}$	11 $\frac{1}{8}$	3 $\frac{1}{2}$	95-130	115	45
VR-6225	500	E	12 $\frac{3}{8}$	5	7 $\frac{3}{8}$	11 $\frac{1}{8}$	3 $\frac{1}{2}$	190-260	230	45
VR-6116	1000	H	13 $\frac{3}{8}$	14 $\frac{1}{8}$	9 $\frac{3}{8}$	11 $\frac{1}{8}$	12 $\frac{3}{8}$	95-130	115	92
VR-6226	1000	H	13 $\frac{3}{8}$	14 $\frac{1}{8}$	9 $\frac{3}{8}$	11 $\frac{1}{8}$	12 $\frac{3}{8}$	190-260	230	92
VR-6117	2000	H	36 $\frac{1}{4}$	14 $\frac{3}{4}$	10 $\frac{3}{4}$	34	12 $\frac{3}{8}$	95-130	115	185
VR-6227	2000	H	36 $\frac{1}{4}$	14 $\frac{3}{4}$	10 $\frac{3}{4}$	34	12 $\frac{3}{8}$	190-260	230	185
VR-7B	2000	C	16 $\frac{1}{4}$	14 $\frac{3}{4}$	11 $\frac{3}{8}$	9 $\frac{3}{8}$	13 $\frac{3}{8}$	115/230	115/230	200
VHF-6114*	250	E	14 $\frac{1}{8}$	13 $\frac{3}{8}$	9 $\frac{3}{8}$	12 $\frac{3}{8}$	11 $\frac{1}{8}$	95-130	115	49
VHF-6115*	500	E	14 $\frac{1}{8}$	13 $\frac{3}{8}$	9 $\frac{3}{8}$	12 $\frac{3}{8}$	11 $\frac{1}{8}$	95-130	115	75
VHF-6116*	1000	E	29 $\frac{1}{4}$	14 $\frac{3}{4}$	10 $\frac{3}{4}$	27 $\frac{1}{8}$	12 $\frac{3}{8}$	95-130	115	150

*Harmonic filtered models. Harmonic content less than 3%.

**Isolated secondary units.

***Available with isolated secondary if desired.

†Portable models, supplied with cord and plug and output receptacle.

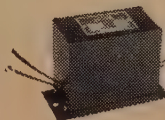
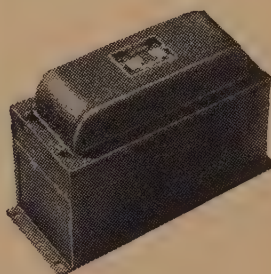
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9. Smaller, lighter, more compact; no moving parts
10. Cost less to operate



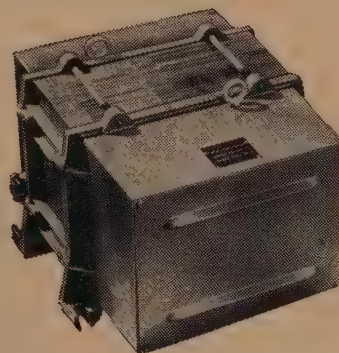
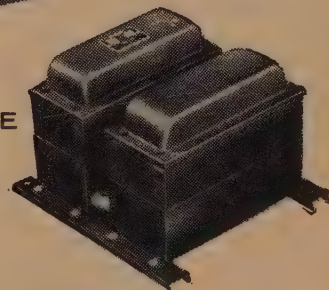
STYLE D

STYLE E



STYLE F

STYLE H



STYLE C

The complete line of Raytheon Voltage Stabilizers is available through 155 authorized distributors. Special custom-built units, ranging from 5 to 10,000 watts are also available to meet special needs. Write for complete information.



A-4029

Excellence in
Electronics

RAYTHEON MANUFACTURING COMPANY

Equipment Marketing Division Dept. 6270-MC • Waltham 54, Mass.

District Offices: Boston, New York, Cleveland, Chicago, New Orleans, Los Angeles (Wilmington), San Francisco, Seattle

When ordering or seeking information
please mention Electronics Buyers' Guide.

Malco IS YOUR BEST SOURCE FOR SOLDERING LUGS TERMINALS PRINTED CIRCUIT HARDWARE



HERE'S WHY:

- Specialized high production techniques afford lowest possible unit cost.
- Precision tooling, rigid quality control assure tolerances to critical specifications.
- Ample stocks of over 1000 different parts permit prompt delivery.
- Malco specializes in a complete line of small stampings for Radio-TV, electrical/electronic and automotive industries.
- Our line includes terminals and printed circuit hardware in loose or in chain form for automatic insertion.

Let Malco show you how you can save on production time and costs. Contact us today.



Request handy reference catalog containing specifications on standard and custom-made lugs, terminals, corona rings, pins, contacts and similar stampings.

Malco TOOL and MANUFACTURING CO.
4023 W. Lake St., Chicago 24, Ill.

Sub-Miniature Mylar* Capacitors with Mylar cases

NOW—for the first time, Mylar* dielectric capacitors for the price of paper capacitors.

NOW—Molded capacitors and ceramic cased capacitors are obsolete.

These capacitors rival: the expensive glass-to-metal seal, metal cased capacitors for quality and size; the metalized paper capacitor for size and weight, yet they are far superior to the metalized paper capacitor and much lower priced than either.

Typical Sizes Type UM (Round, tubular)

.1 mfd.....	150 V.D.C.....	5/16" dia. x 7/8"
.05 mfd.....	200 V.D.C.....	9/32" dia. x 7/8"
.1 mfd.....	200 V.D.C.....	11/32" dia. x 7/8"
.05 mfd.....	400 V.D.C.....	5/16" dia. x 1"
.005 mfd.....	600 V.D.C.....	1/4 " dia. x 3/4"

Typical Sizes Type UMF (Flat, rectangular)

.47 mfd.....	150 V.D.C.....	.7/16" x 23/32" x 1-1/4"
.33 mfd.....	400 V.D.C.....	3/8 " x 11/16" x 1-7/8"

Temperature— -55°C to $+90^{\circ}\text{C}$ at rated voltage and 125°C with 50% voltage derating.

Life Test—140% of rating for 250 hours.

Humidity Test—500 hours at 40°C and 95% humidity.

Dielectric Strength—All capacitors tested at 200% of rating.

Insulation Resistance—50,000 meg./mfd. before humidity cycle, 50,000 meg. after humidity cycle.

Power Factor—Less than 1% at 1,000 cycles at 25°C

* DuPont T. M.

"Another New Product: temperature stabilized capacitors, capacitance drift with temperature is less than 50 PPM/ $^{\circ}\text{C}$, which is less than .3% capacitance change from 25°C to 85°C "

UNIVERSAL CONDENSER COMPANY

Division of McNaught Metal Products Co., Inc.

3435 North Kimball Avenue—Chicago 18, Illinois—Phone: Cornelia 7-3933

ONONDAGA POTTERY COMPANY

Electronics Division

- A complete line of plug-in units for printed wiring boards now packed in rectangular tubular cartons for hand or machine insertion. Carton designed to be used as a hopper in conjunction with automatic inserting machines. We solicit your inquiries either direct or through our representatives.



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MTI Evaluator

RECEIVER TESTING

(9) (11) (12) (14) (15)

STRIPLINE

(13)

Write...

for descriptive literature
on each of the products
shown.



TYPE 100-1
Automatic Voltmeter
with 1000 ohm input impedance



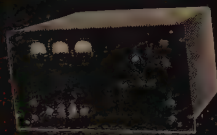
TYPE 373

Ballistic Constant
Recorder
(\$7950 - \$10,000)



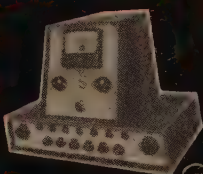
TYPE 116R

Power Source
(\$1500)



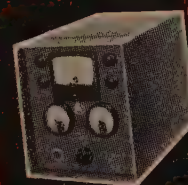
TYPE 124

Power Oscillator
100-2000 Mc
2.5-40 watts (peak)
\$1500



TYPE 160

Frequency
Display Unit



TYPE 150

Receiver
to 1000 Mc
\$1500



TYPE 40

Electronic Amplifier &
Audio Time Recorder
\$1500



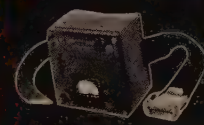
TYPE 201

Inductive Meter
Emitter Output
Control



TYPE 30

100 Ampere
Accuracy 0.005 to 0.01
of indicated current
\$395



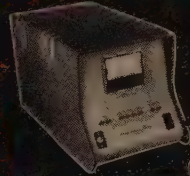
TYPE 286T

Low Current
Meters
\$1500



TYPE 70A

Acoustic Modulator
1000-2000 Mc
\$350
(Output to 20 dB)



TYPE 72

Automatic Frequency
Indicator
100-2000 Mc
\$1500



TYPE 390A-3

Microwave Crystal
Test Set
\$97



TYPE 130

Test Receiver for
Precise Selectivity, Gain
& N-F Measurements
\$1350

R-F Circuitry*

Airborne Instruments Laboratory

INCORPORATED

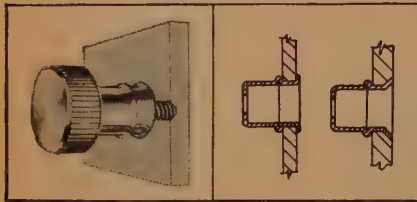
160 OLD COUNTRY ROAD • MINEOLA, N.Y.



*Quoted to meet your requirements

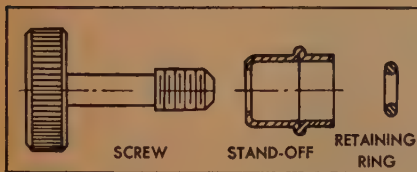
SELECT CLOSURE HARDWARE TO IMPROVE UTILITY, APPEARANCE, AND TO LOWER COST

QUICKLY INSTALLED SOUTHCO CAPTIVE PANEL SCREWS END MISALIGNMENT PROBLEM...



Simplicity of design contributes to clean, distinctive appearance and fast, low-cost installation. Stand-off is slipped into panel hole and secured by flaring. Screw is passed through stand-off and made captive by vinyl o-ring.

"Floating" screw design eliminates costly close tolerance manufacture and permits easy engagement regardless of panel distortion encountered under adverse use conditions.



SPECIFICATIONS

Material: Screw is brass, chrome plated; can be supplied in stainless steel. O-ring is vinyl plastic.

Overall length of screw: $1\frac{3}{16}$ "

Depth of screw head: $\frac{1}{4}$ "

Sizes:

SCREW HEAD DIAMETER	THREAD SIZE
$\frac{3}{8}$ "	$\frac{1}{4}$ -20
$\frac{1}{2}$ "	$\frac{1}{4}$ -20, 12-24
$\frac{5}{8}$ "	10-24, 10-32

Length of thread: $\frac{3}{8}$ "

Screw head is supplied plain, as shown, or slotted for screw driver.

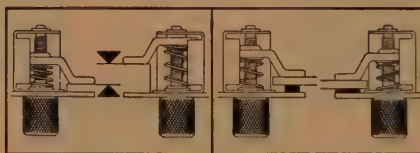
PRE-ASSEMBLED PAWL ADJUSTS TO DESIRED THICKNESS AND PRESSURE



This neat, compact Southco panel and door fastener is supplied assembled, requires but two rivets or bolts for low cost installation. It is available in three models—large, intermediate and midget.

The unique feature of Southco Pawl Fasteners is the fact that, by merely turning the knob, the pawl is adjusted to a wide range of frame thicknesses. This assures a tight grip without precision setting regardless of variations in frame or door dimensions or changes that are produced by wear or warping of sheets.

Pressure exerted by the pawl on the frame is controlled in the same way, by merely turning the knob. Against gasketed frames, pressure can be easily applied to compress the gasket.



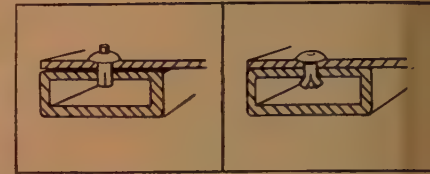
SPECIFICATIONS

Knob: Cadmium or chromium plated steel.

Head Styles: Protruding ribbed or knurled knob; flush screw driver slotted for large size only.

	LARGE	INTERMEDIATE	MIDGET
Knob diameter	$\frac{7}{8}$ "	$\frac{5}{8}$ "	$1\frac{1}{2}$ "
Total width	$2\frac{1}{2}$ "	$1\frac{3}{4}$ "	$1\frac{1}{8}$ "
Total height	$1\frac{3}{8}$ "	$\frac{7}{8}$ "	$\frac{3}{4}$ "
Back of panel depth	$1\frac{23}{32}$ "	$1\frac{1}{4}$ "	$\frac{7}{8}$ "
Knob length	$1\frac{1}{8}$ "	$1\frac{1}{8}$ "	$\frac{1}{2}$ "

FAST, HAMMER-DRIVEN BLIND RIVETS CUT INSTALLATION TIME



You "hit-the-pin" and the rivet's in. No special tools to limit production or require maintenance, no bucking, no finishing. For blind or open applications, Southco Drive Rivets save time, reduce costs.

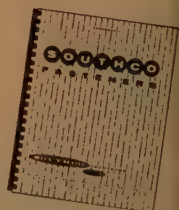
Automatic "pull-up" action assures uniform, tight grip.

Southco Rivets are made of aluminum or cadmium plated steel with cadmium plated or stainless steel pins. Diameters are from $\frac{1}{8}$ " to $\frac{1}{4}$ ", grip range is from $\frac{1}{16}$ " to $\frac{3}{8}$ ".

Increased widespread use is due to low installed cost and elimination of down time and maintenance associated with fasteners requiring special tools.

FREE!

Fastener Handbook



Send for your free copy of Handbook No. 7, just released. Gives complete data for designers on these and many other specialty fasteners. 52 pages, in two colors.

Write on your letterhead to Southco Division, South Chester Corporation, 255 Industrial Highway, Lester, Pa.



BLIND RIVETS

$\frac{1}{4}$ TURN FASTENERS

ADJ. PAWL FASTENERS

DOOR LATCHES

RETAINING SPRINGS

ANCHOR NUTS

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*AMP's custom-designed
and versatile line*

FOR RADAR AND ELECTRONIC

EQUIPMENT APPLICATIONS

Ampli-FILM® the all-purpose high voltage dielectric

- ... is not affected by acids or organic solvents
- ... undergoes no distortion under high temperatures and pressures
- ... is readily bonded by adhesives
- ... is easy to handle and fabricate

CAPITRON® WAFER CAPACITOR—Ampli-FILM® dielectric sheets and high conductivity copper electrodes are bonded together under high heat in hydraulic presses using a special non-polar thermo-plastic bonding resin to obtain a solid, void-free sealed capacitor for rugged requirements in high voltage circuits. Having indefinite shelf life, these capacitors are designed for use in oil filled assembly, but also they are well suited for many applications in potted or encapsulated assemblies. They can be supplied in various form factors including curved shapes.

CAPITRON® POWER SUPPLIES—Use of Capitron® Wafer Capacitors enables AMP to provide a wide variety of high voltage power supplies for radar indicators and radar modulators. The small size and light weight of these units dictates their use in many airborne applications. They are supplied either as oil filled metal cased units or as epoxy encapsulated units. AMP's LGH terminals solve high altitude application problems.

CAPITRON® ARMORED WAFER CAPACITOR—Factors of this Capacitor are as follows

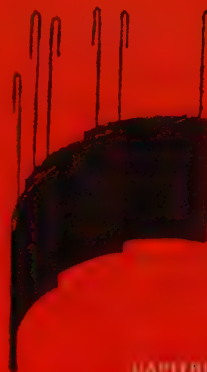
- Armor type encapsulation to resist extreme thermal and mechanical shock.
- Eliminates high altitude flash-over, as metal terminals are not exposed . . . they are enclosed within the armor encasement.
- Multiple connections to capacitor leads can be made with little or no increase in over-all size of the capacitor.
- Versatility of design eliminates revamping assembly to accommodate the capacitor.

CAPITRON® PULSE SYSTEM PACKAGE—Charging choke, pulse forming network and pluse transformers are combined in a unit of minimum size and weight to work with a specific magnetron. All components are designed by and manufactured under the direct control of AMP's pulse specialists.

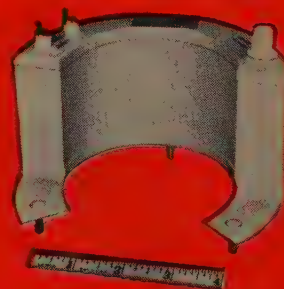
CAPITRON® PULSE FORMING NETWORKS—AMP pulse forming networks can be supplied to meet rigorous specifications with special emphasis on high reliability, small size and light weight for airborne radar applications.



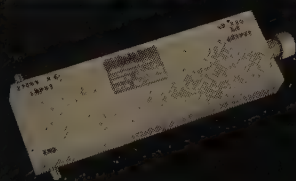
CAPITRON® WAFER CAPACITOR



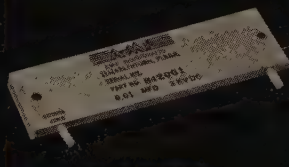
CAPITRON®
CURVED WAFER CAPACITOR



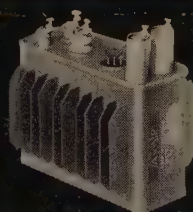
CAPITRON® POWER SUPPLY



CAPITRON® POWER PACK



CAPITRON®
ARMORED WAFER CAPACITOR



CAPITRON®
PULSE SYSTEM PACKAGE



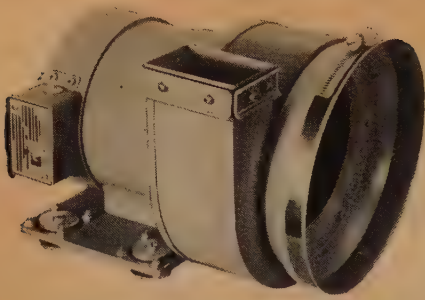
CAPITRON®
PULSE FORMING NETWORKS

AMP INCORPORATED
CHEMICAL AND DIELECTRIC DIVISION
155 Park Street, Elizabethtown, Pennsylvania

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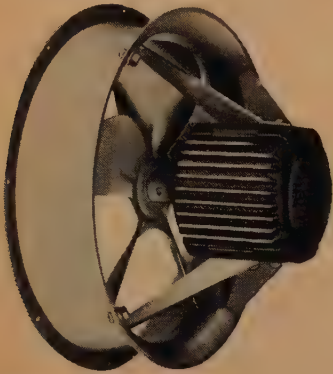
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CENTRIFUGAL BLOWERS—LOOSE SCROLL
 $N_s=30,000-70,000$



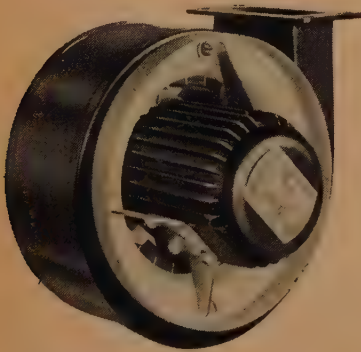
VANEAXIAL FANS
 $N_s=50,000-125,000$



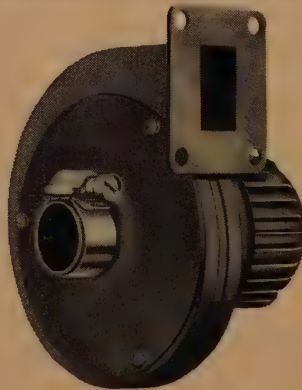
PROPELLER FANS
 $N_s=100,000-400,000$

Engineered to $\frac{N\sqrt{Q}}{\Delta P^{0.75}} = L_s$

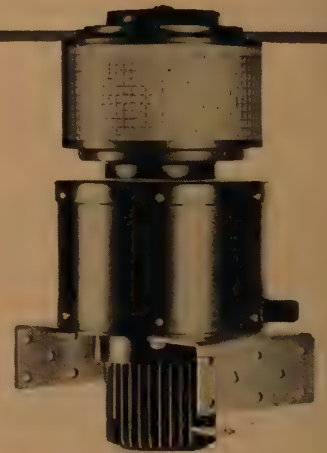
Our Fans and Your Equipment
 Become Smaller, Quieter and Cheaper



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MULTISTAGE BLOWERS
 $N_s=900-9,000$



The wide range of ROTRON FAN types enables our Application Engineers to match accurately the SPECIFIC SPEED (N_s) of our air movers with the LOAD-SPEED (L_s) characteristics of your equipment for ultimate cooling efficiency. Send for CATALOG SHEET #20201-5.

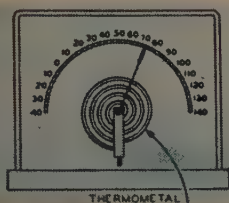
ROTRON MANUFACTURING CO., INC.
 WOODSTOCK • NEW YORK

Designing for Product Improvement With WILCO THERMOMETAL®

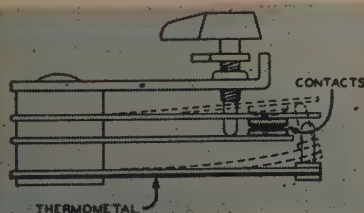
Thermometal (thermostatic metals) are laminations of two or more different metals with unequal coefficients of expansion. The difference in rate of expansion causes them to change shape with changes in temperature and, if restrained, to build up force.

This basic fact is of great industrial importance, for it makes possible the application of Thermometal in indicating and controls devices in 4 broad categories.

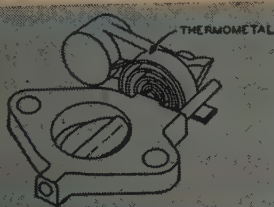
1. Temperature Indication, as in Thermometal thermometers.



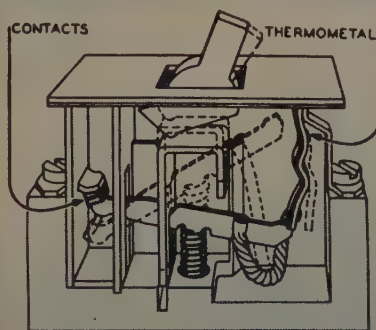
2. Temperature Control, as in electric irons, toasters, or room thermostats.



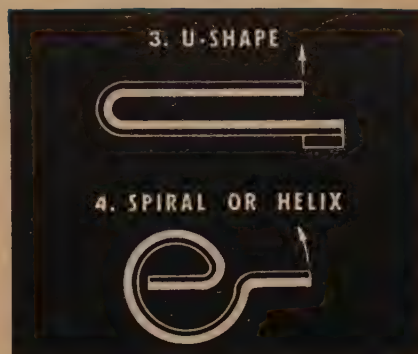
3. Temperature Compensation, as in automotive heat manifold control.



4. Sequence Control by Functional Heating, as in electric circuit breakers for overload protection.



Thermometal can be rolled to any desired thickness and formed into almost any shape, and still respond to temperature changes. For this reason it is a unique thermal element, which functions without linkages, seals, special mountings, and in most applications without electrical energy. Thermometal can be made to perform simple flexing motion, rapid snap action, and rotary or twisting motions. Four basic shapes are used alone or in combinations to obtain these motions:

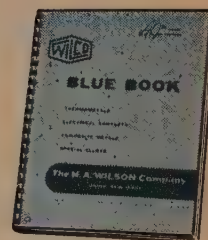


According to the application, the selection of Thermometal is generally governed by four performance factors:

1. Maximum temperature encountered in service: (300°F, 500°F, 800°F, or 1000°F)
2. Temperature range over which maximum sensitivity is required: 50°–300°F (low); 150°–450°F (medium); 300°–600°F (high); 500°–800°F (extra high)
3. Deflection and force required
4. Electrical conductivity

The H. A. Wilson Company is the American pioneer in the development and manufacture of thermostatic metals. We produce over 40 metals for this use. Also we make a complete line of electrical contacts for use with Thermometal.

Reprints of this series are available on request. For further information about our products, ask for the Wilco Blue Book, the most complete reference manual ever written on Thermometal. And if you have an immediate application problem for Thermometal or other Wilco products, please tell us. Our engineering service is at your disposal.



THERMOMETAL
ELECTRICAL
CONTACTS
COMPOSITE METALS
SPECIAL PURPOSE
ALLOYS

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Waters

Miniature POTENTIOMETERS Precision

Waters Wire Wound Precision Potentiometers

are available in many variations — ganged, tapped, with various electrical and mechanical angles, locking shafts, anti-rotation pins, "O" rings, custom shafts and the new dual Concentric Shaft construction. Write for catalog.



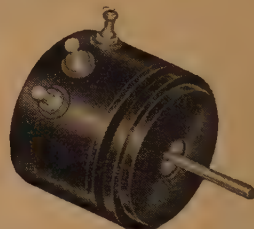
Full Size

Radial terminals available

Full Size



Full Size



AP $\frac{1}{2}$ BUSHING
The AP $\frac{1}{2}$ is micro-miniature potentiometer that meets the requirements of today and tomorrow for high performance while retaining the rugged dependability of the approved Waters design.

Micro-Miniature

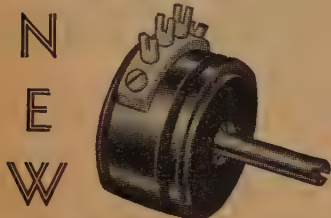
AP $\frac{1}{2}$ S SERVO

RT/RTS $\frac{7}{8}$ BUSHING
The RT $\frac{7}{8}$ has been proven reliable in thousands of Military and Commercial installations. The RTS $\frac{7}{8}$ is available in a dual unit with Waters new Concentric Shaft construction.

Miniature **RT $\frac{7}{8}$ S** SERVO

LT $\frac{7}{8}$ "LO TORK" Ball Bearings
LLT $\frac{7}{8}$ Jewel Bearings
Miniature Low Torque

Extremely low torque is now available in two miniature models. Use jewel bearings for extra low torque or because of a contaminated environment.



AP1-1/16 BUSHING
Miniature AP1-1/16S SERVO

The AP 1 1/16 offers Waters reliability in the AIA nominal one inch diameter. Available as a servo or bushing mounted unit, it offers excellent precision in a miniature potentiometer.

AP1 $\frac{1}{8}$ BUSHING
Miniature AP1 $\frac{1}{8}$ S SERVO

The AP 1 $\frac{1}{8}$ provides higher resistance values with better resolution and linearity, and yet is a miniature unit in every sense. The AP 1 $\frac{1}{8}$ is available as a dual unit with Waters new Concentric Shafts.

WP1 $\frac{5}{8}$ BUSHING
Precision WP1 $\frac{5}{8}$ S SERVO

Applying proved miniature design and assembly techniques to a standard size unit, Waters can offer reliability and precision in the 1 $\frac{5}{8}$ inch size equivalent to many 2 inch or larger potentiometers.

ADVANCE NOTICE

Available
August 1, 1957

STANDARD WATERS ELECTRICAL AND MECHANICAL SPECIFICATIONS

Model	Resistance Range $\pm 5\%$ *	Linearity (Bushing)*	Linearity (Servo) (S)*	Case Diameter	Case Length (Bushing)	Case Length (Servo) (S)	Shaft Diameter
AP $\frac{1}{2}$	$\frac{1}{2}$ -250 K ohm	5%-2% over 50 K	3% - 2% over 50 K	$\frac{1}{2}$ inch	$\frac{3}{8}$ inch min.	$\frac{1}{2}$ inch min.	$\frac{1}{8}$ inch
RT/RTS $\frac{7}{8}$	$\frac{1}{2}$ -250 K ohm	3%	2%	$\frac{7}{8}$ inch	$\frac{3}{8}$ inch	$\frac{1}{2}$ inch	$\frac{1}{8}$ "-RT $\frac{7}{8}$ - $\frac{1}{4}$ "
LT $\frac{7}{8}$	25-100 K ohm	None	0.5%	$\frac{7}{8}$ inch	None	0.80 inch	$\frac{1}{8}$ inch
LLT $\frac{7}{8}$	$\frac{1}{2}$ -150 K ohm	None	0.5%	$\frac{7}{8}$ inch	None	0.80 inch	0.040"
AP 1 1/16	$\frac{1}{2}$ -350 K ohm	2%	1%	1 1/16 inch	$\frac{1}{2}$ inch	1 1/16 inch	$\frac{1}{8}$ inch
AP 1 $\frac{1}{8}$	$\frac{1}{2}$ -350 K ohm	2%	1%	1 $\frac{1}{8}$ inch	$\frac{1}{2}$ inch	1 1/16 inch	$\frac{1}{4}$ inch
WP 1 $\frac{5}{8}$	$\frac{1}{2}$ -500 K ohm	0.5%	0.5%	1 $\frac{5}{8}$ inch	2 5/32 inch	1 1/32 inch	$\frac{1}{4}$ inch

STANDARD RESISTANCES — ALL SERIES, 50, 100, 200, 500, 1K, 2K, 5K, 10K, 20K, 25K. IN ADDITION, 40K and 50K ON RT/RTS $\frac{7}{8}$ AND "LO TORK" SERIES AND 40K, 50K AND 100K ON AP 1 1/16, AP 1 $\frac{1}{8}$ AND WP 1 $\frac{5}{8}$ SERIES.



"TORQUE WATCH"

measures low torque

Gauges for measuring torque of servomechanisms, variable condensers, potentiometers, and small rotating machinery. Six Standard Models

One-way—300°
Two-way—600°

Accurate — repeatable accuracy of $\pm 5\%$

Easy to read linear scale on a one-inch dial

Compact—1 $\frac{1}{2}$ " dia. x 3-7/16" long, including Jacobs chuck for shafts to $\frac{1}{4}$ " dia.

Other Potentiometer Test Equipment

ANGLYZER — Checks electrical and mechanical angles (illus.)
LINEARITY ANALYZER — checks electrical characteristics.

CONFORMITY STANDARD — step by step non-linear potentiometer testing.

POT TEST STATION — All units above completely integrated.

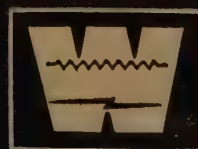
*Variations available on special order, forward requirements for prompt analysis. Details subject to change without notice.



Waters

MANUFACTURING, inc.

Wayland, Massachusetts
P. O. Box 368, So. Sudbury, Mass.
APPLICATION ENGINEERING OFFICES
IN PRINCIPAL CITIES



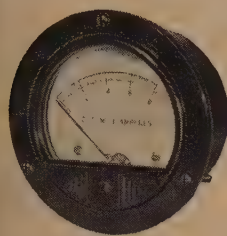
Waters

COMPONENTS and PANEL METERS

Waters Components and Panel Meters

include an ever-increasing variety of high-quality products. Write for our latest catalogs whenever you need electronic components.

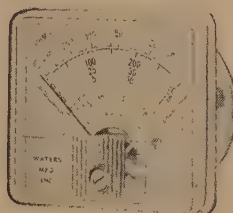
PANEL METERS



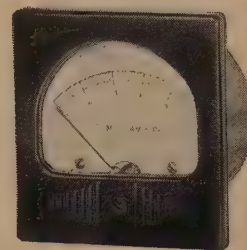
Model 250



Model 360



Model PS250



Model 350S

The complete line of Waters Panel Meters includes all standard sizes and styles. Custom meters can be furnished to your specifications regarding scales, graduations, ranges, colors,

and special markings. All meters have D'Arsonval-type movements with standard accuracy 2% of full scale. All a-c meters have internal rectifiers. Rear illumination can be furnished to your specification.

Model	Size	Description
250	2 1/2"	Round Bakelite case
260	2 1/2"	Round metal case*
PS250	2 1/2"	Rectangular, clear plastic case
350	3 1/2"	Round Bakelite case
360	3 1/2"	Round metal case*
PS350	3 1/2"	Rectangular, clear plastic case
250-S	2 1/2"	Rectangular black Bakelite case
350-S	3 1/2"	Rectangular black Bakelite case
450-S	4 1/2"	Rectangular black Bakelite case
450-SP	4 1/2"	Rectangular black Bakelite case; has provision for front illumination
460	4 1/2"	Round metal case*

Ranges	D-c Types	A-c Rectifier Types
Microamperes	0-25 to 0-9000	0-100 to 0-900
Milliamperes	0-1 to 0-1000	0-1 to 0-500
Amperes	0-1 to 0-20 ¹	—
Millivolts	0-10 to 0-1000	—
Volts	0-1 to 0-500 ^{2,3}	0-1 to 0-500 ³

¹ Over 20 amperes, a 50-millivolt movement is used with an external shunt.

² 1000 ohms per volt.

³ External resistor required over 500 volts.

*Hermetically sealed MIL-M-6A JAN-I-6



Model 450S

R-F CHOKES

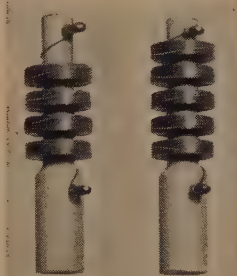
Waters R-F Chokes provide high Q in small size. Standard constructions include:

- Solenoids on phenolic & powdered-iron forms.
- Pie-wound coils on ferrite cores & powdered-iron or phenolic forms.
- Pie-wound coils on ceramic forms.

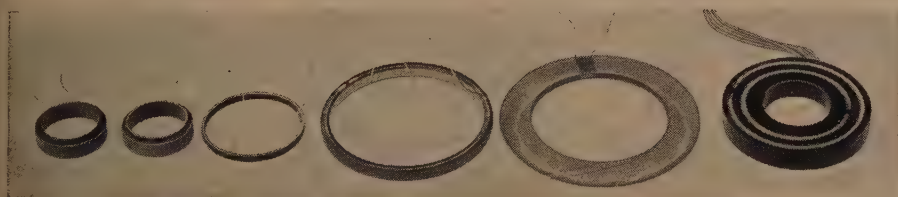
Designs features are:

- Finish to MIL-V-173A or to your specification.
- Inductance ratings from 1.1 μ h up.
- Current ratings from 50 to 2800 ma.

Write for free data sheet #C-657 giving inductance, resistance, current rating, Q vs frequency, distributed capacitance, and core sizes. Ask for quotation on special units.



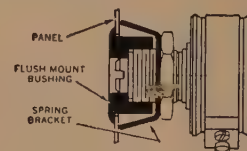
PRECISION TOROIDS



A toroidal winding offers the most stable and accurate means of producing precision circular resistance elements for all angles to a full 360°. Waters engineering department can assist you in the proper design of single layer toroidal windings to achieve top lineari-

ty and resolution. Special facilities are available for precision tapping, buffing, baking and other finishing or assembly operations. Winding forms may be small or large. Winding wire can be below 1 mil. Forward your specifications for prompt analysis.

Pot-Hook Panel Mount

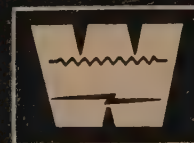


Now you can easily make any single-hole-mounting pot or trimmer into a flush-mounted or recessed control. Just use the Waters "Pot-Hook".

Waters

MANUFACTURING, Inc.

Wayland, Massachusetts
P. O. Box 368, So. Sudbury, Mass.
APPLICATION ENGINEERING OFFICES
IN PRINCIPAL CITIES



Bradley
LABORATORIES, INC.

**YOUR MOST COMPREHENSIVE SINGLE SOURCE FOR
SELENIUM AND COPPER OXIDE RECTIFIERS**

SPECIAL RECTIFIERS ARE STANDARD AT BRADLEY LABORATORIES

High Temperature, Limiters, Control, Limited Life, Instrument, Magnetic Amplifier,
Radio & TV Stacks, Modulators, Diodes, Humidity, Fungus and Salt Spray
Resistant, Vibration and Shock Resistant, Stabilized, Metal, Glass and
Plastic Hermetically Sealed.

VACUUM PROCESSED — FOR PERFORMANCE AS RATED

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170G Columbus Ave., New Haven 11, Conn.

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P. O. Box 6595
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Caine Sales Company
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Chicago 41, Illinois

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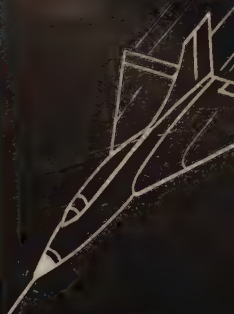
TENSOLON

TEFLON[®] INSULATED WIRE AND CABLE

® Du Pont



- QUALITY AND RELIABILITY
- -90°C TO $+250^{\circ}\text{C}$ RANGE
- HIGH DIELECTRIC STRENGTH
- SUPERIOR CHEMICAL RESISTANCE
- EASE OF STRIPPING AND SOLDERING
- UNLIMITED COLOR CODING
- MINIATURIZATION



AVIATION



DEFENSE



TELEMETERING



RESEARCH
AND
DEVELOPMENT

Tensolite

INSULATED WIRE CO., INC.
TARRYTOWN, N. Y. LOS ANGELES, CALIF.



ONLY

Tensolute

MAKES ALL



... IN HOOK-UP WIRE

EXTRUDED TEFLON

PARALLEL WRAPPED TEFLON

SPIRAL WRAPPED TEFLON



Special Features

1. Operating temperature range: -90°C to $+250^{\circ}\text{C}$
2. Excellent solderability
3. High insulation resistance
4. Unlimited color coding—with up to 819 stripe combinations
5. Conformance to MIL-W-16878B
6. Ease of stripping—either manual or automatic

EXTRUDED — PARALLEL WRAPPED — SPIRAL WRAPPED

CONDUCTOR Silver-Plated Copper Wire			TYPE E—600 VOLTS .010" Nominal Wall Thickness				TYPE EE—1000 VOLTS .015" Nominal Wall Thickness			
AWG	Stranding	Circ. Mils Nominal	Dia. Over Insulation (Max)	Catalog No. EXTRUDED	Catalog No. PARALLEL WRAP	Catalog No. SPIRAL WRAP	Dia. Over Insulation (Max)	Catalog No. EXTRUDED	Catalog No. PARALLEL WRAP	Catalog No. SPIRAL WRAP
32	7/40	69	.033"	32401A-1	32101A-1	— —	.043"	32601A-1	32301A-1	— —
30	7/38	110	.036"	30401A-1	30101A-1	30501A-1	.046"	30601A-1	30301A-1	— —
28	7/36	175	.039"	28401A-1	28101A-1	28501A-1	.049"	28601A-1	28301A-1	28902A-1
26	7/34	278	.043"	26401A-1	26101A-1	26501A-1	.053"	26601A-1	26301A-1	26901A-1
24	7/32	442	.048"	24401A-1	24101A-1	24501A-1	.058"	24601A-1	24301A-1	24901A-1
24	19/36	475	.048"	24403A-1	24107A-1	24506A-1	.058"	24603A-1	24305A-1	24903A-1
22	7/30	700	.054"	22401A-1	22101A-1	22501A-1	.064"	22601A-1	22301A-1	22901A-1
22	19/34	755	.054"	22403A-1	22103A-1	22504A-1	.064"	22603A-1	22317A-1	22903A-1
20	7/28	1120	.062"	20401A-1	20101A-1	20501A-1	.072"	20601A-1	20301A-1	20901A-1
20	19/32	1200	.062"	20403A-1	20106A-1	20504A-1	.072"	20603A-1	20303A-1	20903A-1
18	19/30	1909	.074"	18401A-1	18101A-1	18501A-1	.084"	18601A-1	18301A-1	18901A-1
16	19/29	2409	.087"	16401A-1	16101A-1	16501A-1	.095"	16601A-1	16301A-1	16901A-1
14	19/27	3830	.101"	14401A-1	— —	14501A-1	.113"	14601A-1	— —	14901A-1
12	19/25	6088	.120"	12401A-1	— —	12501A-1	.132"	12601A-1	— —	12901A-1
10	37/26	10443	.141"	10403A-1	— —	10503A-1	.153"	10603A-1	— —	10903A-1

NOTE:

All of the above wire can be shielded to customer specifications. Solid conductors and other strandings are available on request.

EXTRUDED:

Available in 14 solid colors and spiral striping. Also available with special surface treatment for moisture proof, high temperature encapsulation and ready adhesion of printed identification.

PARALLEL WRAPPED:

Available in fourteen solid colors and spiral striping. Especially recommended for applications where a high degree of flexibility is necessary.

SPIRAL WRAPPED:

Available in solid colors and 819 striped combinations using nine ink colors on white background. Colors include black, brown, red, orange, yellow, green, blue, violet, and gray. Colored backgrounds available on request.

TENSOLO AIR FRAME TO MIL-W-7139A

AWG	Stranding	Max. Dia. Stranded Cond.	Nom. Cond. Area (Cir. Mils)	Max. Resistance (Ohms/1000 ft.)	Max. Dia. Finished Wire	Tensolite Code No.
22	19/34	.033"	755	16.45	.090"	22704 L-1
20	19/32	.041"	1,200	10.25	.100"	20706 L-1
18	19/30	.052"	1,909	6.44	.115"	18702 L-1
16	19/29	.061"	2,409	4.76	.130"	16703 L-1
14	19/27	.076"	3,830	2.99	.150"	14702 L-1
12	19/25	.096"	6,088	1.88	.170"	12702 L-1
10	37/26	.132"	10,443	1.10	.200"	10702 L-1
8	133/29	.176"	16,864	0.70	.255"	08702 L-1
6	133/27	.218"	26,813	0.43	.310"	06702 L-1

TENSOLO AIRFRAME WIRE TO MIL-W-7139A is a rugged, abrasion-resistant wire designed for high temperature applications where extreme reliability is required. This wire will function during temporary overload conditions and provide short-time emergency operation in the event of fire. It is especially recommended for all missile and aircraft applications where full approval under MIL-W-7139A is required.

MINIATURE TENSOLO COAXIAL CABLES

Conductor: #30 AWG; 7/38 Silver Plated Copperweld		Shield: #38 AWG; 90% Minimum Coverage	
NOMINAL IMPEDANCE:		50 OHMS	75 OHMS
JACKETS:		70 OHMS	93 OHMS
TEFLON Tensolite Code Number	.080" O. D. 30850 T-1 (RG-196/U*)	.100" O. D. 30870 T-1	.110" O. D. 30875 T-1 (RG-187/U*)
EXTRUDED NYLON Tensolite Code Number	.064" O. D. 30850 N-1	.091" O. D. 30870 N-1	.109" O. D. 30893 T-1
VINYL Tensolite Code Number	.086" O. D. 30850 V-1	.097" O. D. 30870 V-1	.137" O. D. 30893 N-1
TEFLON-GLASS BRAID Tensolite Code Number	.071" O. D. 30850 P-1	.092" O. D. 30870 P-1	.160" O. D. 30893 V-1
SILICONE-GLASS BRAID Tensolite Code Number	.071" O. D. 30850 S-1	.092" O. D. 30870 S-1	.145" O. D. 30893 P-1
NYLON BRAID Tensolite Code Number	.071" O. D. 30850 M-1	.092" O. D. 30870 M-1	.145" O. D. 30893 S-1
ELECTRICAL CHARACTERISTICS:		75 ± 3 Ohms 21 mmf 72% 2000 Volts RMS 1000 Volts 21 db/100 ft.	93 Ohms 15.3 mmf 71% 2000 Volts RMS 1000 Volts 17 db/100 ft.
Impedance (Nom.)		50 ± 2 Ohms	95 ± 3 Ohms
Capacitance (Nom.)		28 mmf	15 mmf
Velocity of Prop. (Nom.)		72%	72%
Diel. Strength (Min.)		2000 Volts RMS	2000 Volts RMS
Corona (Min.)		1000 Volts	1500 Volts
Attenuation (400MC max.)		29 db/100 ft.	17 db/100 ft.

*Mil-C-178
NOTE: All O. D.'s are maximum

TENSOLO MINIATURE COAXIAL CABLES are ideal for high frequency operation from -90°C to +250°C. Teflon provides extremely low loss, high dielectric strength, and complete resistance to moisture and chemicals. A great variety of outer jackets permits the selection of cable exactly suited to your application requirements.

See Additional listing of Tensolite products and Representatives on next page —

INSULATED WIRE COMPANY, INC.

P.O. BOX #66

TARRYTOWN, N. Y.

PACIFIC DIV.: 1520 N. GARDNER ST., LOS ANGELES, CALIF.

Tensolite

TENSOLON WIRE AND CABLE..



For an extra margin of dependability at maximum operating temperatures, specify TENSOLITE'S rugged Teflon insulated wire and cable products. Resistant to almost all chemicals and solvents, Teflon combines minimum wall thickness with highest dielectric strength.

TEFLON INSULATED MAGNET WIRE

Teflon insulated round MAGNET WIRE is available in all sizes from #20 to #44 AWG with SINGLE, HEAVY, TRIPLE, and QUAD coatings. Other AWG sizes, rectangular MAGNET WIRE, and non-standard coatings are available upon request.

TEFLON INSULATED CABLE—SINGLE AND MULTI-CONDUCTOR

Teflon insulated cables, are available with 1 through 50 conductors. The insulated conductors conform to the requirements of MIL-W-16878B, types E and EE. Any of the insulated wires may be individually shielded, but usually an overall silver-plated copper shield is applied with any of the various outer jackets. For high temperature applications, a Teflon outer jacket is recommended. Glass braid lacquered with silicone or Teflon can be provided. For lower temperatures, extruded vinyl or nylon jackets and lacquered nylon braids are supplied.

RIBBON CABLE

Ribbon cables consisting of up to 20 Teflon insulated conductors, laid parallel in a flat ribbon, are available with metallic or textile braids. Nylon, fiberglass, or all-Teflon braids, with or without impregnants are ideally suited for high temperature operation. These ribbon cables are recommended for "tight space" applications particularly in printed circuits where flexibility is required.

SURFACE TREATED TEFLON

Teflon insulation, treated to provide a surface to which potting compounds and printing foils will readily adhere. Wire so treated is ideal for high temperature encapsulation.

TEFLON TUBING

Flexible, high temperature slip-on insulation available in ten solid colors to fit 10 through 30 AWG wire.

CUSTOM TEFLON CABLE

Tensolite's engineering facilities are ready to assist you in the design and selection of Teflon insulated wire, cable, and thermocouple wire constructions as well as custom cable assemblies and harnesses.

NOTE: Detailed catalogue information on all of the above products is available on request.

Tensolite

REPRESENTATIVES

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REED & RIDDETT CO.
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MASSEY ASSOCIATES
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Washington 5, D.C.

N.C., S.C., TENN., MISS., ALA., GA., LA.

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P.O. Box #3037

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SHERIDAN ASSOC.
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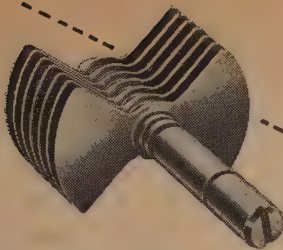
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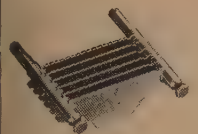
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5257 Queen Mary Rd.
Montreal, Quebec
P.O. Box 760
Brampton, Ontario

EXPORT
TENSOLITE EXPORT DIVISION
Empire State Bldg.
Room 5710
New York 1, N.Y.

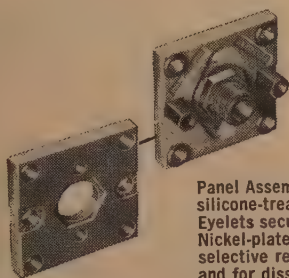




Rotor. Assembled in precision fixture, rigidly soldered. Nickel-plated brass. Precision-grooved rotor to control thrust washer compression.



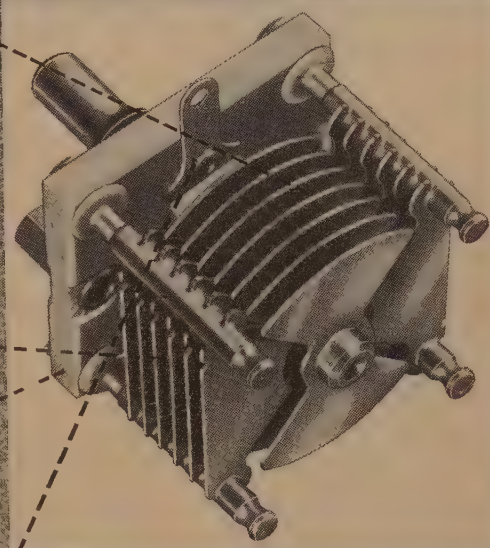
Stators. Assembled in precision fixtures, rigidly soldered. Nickel-plated brass. Jig located in final assembly to maintain exact plate spacing.



Panel Assembly. Low-loss silicone-treated steatite panel. Eyelets securely spun into panel. Nickel-plated brass bearing, selective reamed for shaft fit and for dissimilar bearing metals for long life.



Contact Spring. Beryllium copper heat-treated for long life. Silver-plated for positive contact.



Precision built from every angle.

HAMMARLUND

Means precision in detail

The finest materials, design and workmanship are inherent in every Hammarlund variable capacitor, assuring quality you can depend upon for the most critical applications.

Hammarlund offers a complete line of standard precision-built capacitor designs to fill most requirements. In addition, Hammarlund maintains a large stock of tools and excellent short-order facilities to meet any "special" needs.

When you need standard or special variable capacitors, come to the **expert** first — come to Hammarlund!

● **WRITE FOR COMPLETE CATALOG EB7...**

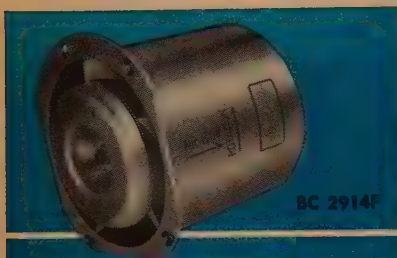
THE HAMMARLUND MANUFACTURING COMPANY, INC.
460 West 34th Street, New York 1, N. Y.
International Division: 13 East 40th Street, New York 16, N. Y.



Established 1910

IMC MOTORS

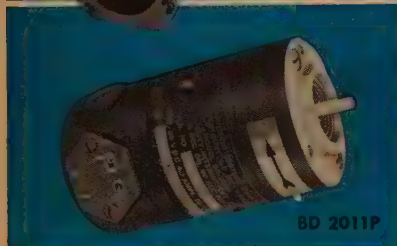
precision with a purpose



2900 Frame Motor

INPUT: 400 cycles, 1 phase capacitor type 225 watts (motor can be wound 3 phase AC or DC)
OUTPUT: 200 cfm @ 2.50" H₂O sp at standard conditions and 8000 rpm
WEIGHT: 5½ lbs

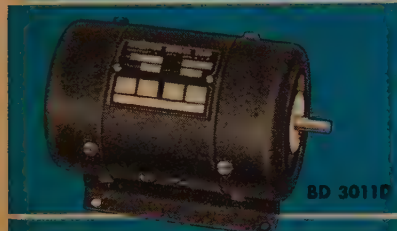
Bulletin 29F1



2000 Frame DC Motor

INPUT: 6-115 volts DC
OUTPUT POWER: 1/75 to 1/10 hp depending on speed, duty cycle and cooling
LIFE: 1000 hr brush life; 250 hrs at high altitude
 Available with gear speed reducer and/or speed governor, shunt, series, or compound wound.

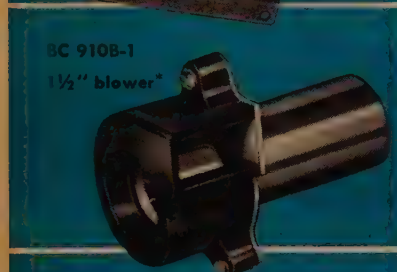
Bulletin 20F2



3000 Frame Dynamotor

INPUT: 6-115 volts as specified
OUTPUT VOLTAGE: 6-450 volts as specified
OUTPUT POWER: Up to 100 watts, depending on duty cycle and cooling
WEIGHT: 5½ lbs

Bulletin 30F3



900 Frame AC Motor

FREQUENCY: 320-1000 cps
AIR DELIVERY: 10 cfm @ 0" sp; 8 cfm @ 0.2" sp
RPM: 7000 @ 400 cps
WEIGHT OZ.: 7
WEIGHT OF MOTOR OZ.: 4½
 *Also available in 1" blower size.

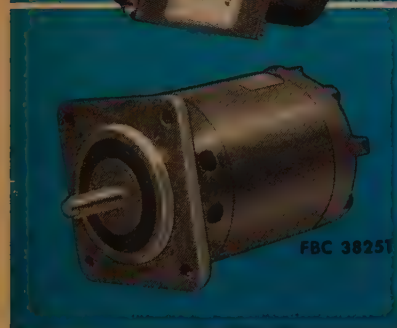
Bulletin 9F4



1500 Frame Dynamotor

SIZE: 1½ x 1½ x 3 in.
WEIGHT: 1 lb
LIFE: 100 hrs brush life at 50,000 ft altitude, 500 hrs at sea level

Bulletin 15F5



3800 Frame AC Motor

INPUT: 26-230 volts AC; 1, 2 and 3 phase
INPUT FREQUENCY: 25-400 cycles
NUMBER OF POLES: 2, 4, 6, 8 and 12 poles
OUTPUT POWER: Induction motors—to 1 hp
 Torque motors—10 to 200 oz. in. stall torque
 Hysteresis synchronous motors—1/200 to ¼ hp
 (Can be wound for single, dual or three speed.)
BEARINGS: Ball or sleeve
WEIGHT: 8-11 lbs

Bulletin 38F6

These units, as are others in the complete IMC line of dynamotors, servo, gear, blower and actuator motors, are constructed to meet MIL specifications for environment and performance. For further information, write



Induction Motors Corp.

570 Main St., Westbury, L. I., N.Y. Phone: EDgewood 4-7070

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ACTON LABORATORIES, INC.

LABORATORY INSTRUMENTS OF EXCEPTIONAL PRECISION

VOLTAGE MEASUREMENT

TYPE 810 VACUUM TUBE VOLTMETER — Has balanced circuits, liberal inverse feedback, and precision components to insure long-time stability and accuracy. 7 full scale DC ranges: 1-1000 volts (+ or -); 6 AC ranges: 1-300 V (rms); 7 resistance ranges 0.2 to 500 with multipliers of X1-X1 meg. DC accuracy $\pm 2\%$; AC accuracy $\pm 3\%$. Frequency response ± 1 db, 10 cps to 700 mc. 100 meg input impedance for DC measurement. High input impedance to 700 mc maintained by 1.2 mmf input capacitance of AC probe. Also available as 810-R (rack mount).

TYPE 815-A VACUUM TUBE VOLTMETER — Has wide ranges. 9 full scale DC ranges: 0.1-1,000 volts (+ or -); 8 AC ranges: 0.1-300 volts (rms); 9 DC current ranges: 0.001 ua to 100 ma; 9 resistance ranges: 0.2 to 500 with multipliers X0.1 to X10 meg. DC accuracy $\pm 2\%$, AC $\pm 3\%$, both 1 V range and higher. Frequency response 15 cps to 100 MC. DC input impedance 100 meg; AC 5 mmf and 10 meg. Also available as 815-AR (rack mount — gray panel).

IMPEDANCE MEASUREMENT

TYPE 310 Z-ANGLE[®] METER — Measures in polar form the impedance, phase angle, dissipation factor, and storage coefficient of any RLC combination. One balancing control permits accurate analyses to be made more quickly and easily than with conventional AC bridges. Measures impedances from 0.5 to 100 K. Frequency range: 30 cps to 40 KC. Accuracy of impedance magnitude is $\pm 1\%$ to 20 KC and ± 2 degrees for phase angle. Unit has internal 400 cps and 60 cps signals.

TYPE 314 LOW-IMPEDANCE Z-ANGLE[®] METER — Quickly and accurately measures low values of complex impedances in polar form. Provides direct readings of impedance in ohms, phase angle in degrees, and dissipation factor. Frequency range of 30-1000 cps, impedance-magnitude range of 0.005-1000 ohms accurate to $\pm 1\%$, and dissipation-factor range of 0 to infinity. Phase angles measured from -90° to 0° to $+90^\circ$, with accuracy of $\pm 1^\circ$ from 30° to 90° and $\pm 2^\circ$ from 5° to 30° . Unique 4-terminal arrangement for current and voltage to unknown nullifies effect of lead impedance and insures accurate measurements. Also available as 314-AR (rack mount).

PHASE MEASUREMENT GENERATION

TYPE 320-AB PHASE METER — Measures phase difference between 2 signals (10 cps to 100 KC) of any wave shape and indicates phase angle on large meter with separate ranges of 360° , 180° , 90° , and 36° . Accuracy is $\pm 1\%$ of full scale ± 3 degrees. Requires no adjustments, corrections, or balancing operations. Amplitude range is .7 to 120 volts rms. Input impedance of 10 meg and 13 mmf. Modifications allow operation to 1 cps. Also available as 320-ABR (rack mount).

TYPE 709-A BROADBAND SECONDARY PHASE STANDARD — Accurately calibrates phase measuring instruments but can also measure phase when used in conjunction with oscilloscope. Develops 2 sinusoidal signals continuously variable from 0° to 360° with respect to each other when fed from oscillator. Range is 20 cps to 20 KC. Accuracy of $\pm 1^\circ$ from 20 cps to 10 KC; $\pm 3^\circ$ from 10 KC to 20 KC. High input impedance, low output impedance. Inherent distortion less than 1%. 0.5 to 5-volt output varies less than $\pm 2\%$ with phase shift. Also available as 709-AR (rack mount).

TYPE 7000-B AUDIO PRIMARY PHASE STANDARD — Designed for calibration of phase detectors and phase shifting devices but can also be used to measure phase shift. Consists of Type 703-A Oscilloscope, Type 704-A Secondary Phase Standard, and Type 707-A Lissajous Generator. Supplies 2 sinusoidal signals of same frequency whose phase relationship is continuously variable from 0° to 360° with $\pm 0.05^\circ$ accuracy. Any single frequency available from 60 cps to 20 KC. Output of 1 to 10 volts rms from impedance of approximately 200 ohms.

TYPE 500-A WIDE BAND DECADE AMPLIFIER — Provides highly stable amplification over 5 cps to 2 mc operating range. Phase shift essentially 0 to 100 KC. Gain can be set to 10, 100, or 1000 and remain constant despite line-voltage variation. Input voltage ranges are 0-2 volts, 0-0.2 volt, and 0-0.02 volt. Input impedance is approximately 160 meg shunted by 7 mmf. Output voltage is 20 volts maximum across 20 K. Output impedance is 200 ohms. Ideally suited for use with Type 320-AB Phase Meter. Available as 500-AR (rack mount) or 500-2AR (dual rack unit in cabinet).

TYPE 511-A POWER AMPLIFIER — Low distortion, low noise and phase shift compensated amplifier for 50 cps to 50 KC range. Output load characteristics: 5 ohms 12.8 watts, 25 ohms 13 watts, 200 ohms 15 watts, 1200 ohms 12 watts, down 1 db at 50 KC. Phase compensation permits application as drive source for Type 7000-B. Also available as 511-AR (rack mount).

TYPE 706-A ULTRA-SONIC PRIMARY PHASE STANDARD — Calibrates high frequency phase meters, phase detectors, and phase-shifting devices. Generates 2 sine-wave signals having variable phase difference 0° to 360° at any specified single frequency 20 to 200 KC. Standard frequency supplied is 82 KC (2000 yards radar range); other frequencies special. Phase angle accuracy of ± 0.1 degree set by observation of multiple frequency Lissajous pattern on built-in scope. Also available as 706-AR.

OSCILLOGRAPHIC RECORDING

TYPE 550-A OSCILLOGRAPHIC RECORDER — An 8-channel, direct writing, direct reading oscillograph with frequency response $\pm 10\%$ to 800 cps with 503-A amplifiers. Especially applicable to sequential timing studies, hydrodynamic testing, acceleration testing, strain evaluation and vibration studies. Displays 8 traces on magnified screen while recording. Uses 35-mm perforated film with black carbon coating, easily lacquer-sprayed for permanency. Channel inputs: 75 volts at 10 ma peak. Amplitude linearity: $\pm 2\%$ of rated peak deflection.

TYPE 503-A DIRECT-COUPLED DRIVE AMPLIFIER — Designed especially for use with Type 550-A Oscillographic Recorder. Supplied with plug-in equalizer preset to equalize frequency response of Type 550-A galvanometer. Frequency range is DC to 1 KC. Maximum gain is 75. Input impedance of 1 meg; load impedance of 7500 ohms. Output voltage is 75 volts. Has internal calibrating signal source and provision for balancing out DC component of signal. Also available in groups of 4 mounted in 504-R rack panel.

POTENTIOMETER TESTING EQUIPMENT

TYPE 394-A PONOGOMETER[®] STANDARD — Measures equivalent noise resistance (ENR) of single or multi-turn precision potentiometers. Provides for establishing threshold level of ENR from 10-2000 ohms. ENR's above threshold level established produce both visual and audio indication. Frequency response flat to 50 KC. Accuracy is $\pm 3\%$ of threshold value ± 3 ohms. Recovery time is 1.5 seconds maximum. Also available as 394-AR (rack mount).

TYPE 395-C PONOGOMETER[®] STANDARD — Standard equivalent noise resistance generator for calibrating Ponogometer[®]. Consists basically of precision potentiometer in parallel with rotary switch. Logarithmically calibrated dial provides direct readings of ENR. Generates ENR values from 0 to 2000 ohms. Accuracy 1%. Also available as 395-CR (rack mount — gray panel).

TYPE 396-B PONOGOMETER[®] ATTENUATOR — Extends range of threshold resistance of Ponogometer[®]. Facilitates rapid change of threshold settings. Permits direct measurement of ENR's from 10 ohms to 100 K. Phase-inverting switch inverts phase of passive noise pulses so that only active pulses are measured by Ponogometer[®]. Attenuation is 0 to 80 db in 4 ranges. Frequency response is ± 3 db from 12 cps to 1.5 mc. Hum and noise level are 34 db below 10 mv. Also available as 396-BR (rack mount — gray panel).

RESEARCH AND DEVELOPMENT

Acton Laboratories, Inc., also has complete facilities and an experienced engineering staff to provide specialized research in and development of electronic components and instruments.

ENVIRONMENTAL TESTING

Component testing to military and commercial specifications in a fully equipped Environmental Testing Laboratory is another important service provided by Acton Laboratories, Inc.



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Engineering Beyond the Expected...



DESIGN beyond the expected

The DOVAP prototype (above) is one half the size called for in specifications.

PACKAGING beyond the expected

Shielding of critical areas and equalizing of heat enabled DOVAP to operate at higher temperatures than specified...without benefit of cooling by either conduction or convection.

PERFORMANCE beyond the expected

Where momentary loss of signal means the end of usefulness, DOVAP functioned unfailingly...under environmental conditions of shock and vibration more severe than specified.

ASSIGNMENT MISSILE

Withstanding torture is a specialty of Packard Bell's Doppler Velocity and Position indicator (DOVAP), designed and developed for an inter-continental missile (classified). In prototype environmental tests, this high powered Doppler Transponder was subjected to temperature, shock and vibration beyond the extremes expected in flight...beyond the extremes called for in specifications.

RESULT: Reliable signal and continuous transmission for an incredible life span.

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SOLA *Constant Voltage* TRANSFORMERS

AUTOMATIC, INSTANTANEOUS VOLTAGE REGULATION

Sola Constant Voltage Transformers are static-magnetic voltage regulators. They are designed to provide a constant output voltage which is unaffected by changes in input voltage. You will find, listed in the following pages, the widest range of ratings and types available from stock offered by any manufacturer.

They have eight distinct advantages over regulators which depend solely upon saturation of core materials for their regulating action, or electronic type regulators:

1. Ultra-fast regulating action. Response time is usually 1.5 cycles or less.
2. No moving or renewable parts or manual adjustments; eliminates need for routine maintenance and spare parts stock.
3. Completely automatic, continuous regulation. No manual adjustments or instruction booklets are required.
4. Self-protecting against short circuits on output or load circuit.
5. Current-limiting characteristic protects load equipment from excessive fault currents.
6. Availability of transformer ratio for step-up, step-down, plate and/or filament supply permits substitution in place of conventional non-regulating transformers.
7. Relatively compact compared to other equipment for comparable ac voltage regulation.
8. Provide isolation between input and output circuits.

In addition, CUSTOM DESIGNED UNITS can be manufactured in capacities from 1 va to 25,000 va, to suit your individual specifications. When ordered in substantial quantities, they cost only slightly more than standard units of the same general size. Often, time and money can be saved by direct use or modification of a regulator from the several hundred special designs on file. Custom designs can include: SPECIAL VOLTAGE RATIOS, SPECIAL FREQUENCIES, COMPENSATION FOR FREQUENCY VARIATION, MULTIPLE OUTPUT VOLTAGES, THREE-PHASE SERVICE, and MILITARY SPECIFICATIONS.



Fluctuating
Line Voltage

Constant Output Voltage

**turn page for electrical and
mechanical specifications
of stock types and
sizes available**

Manufactured by Sola Electric Co. • Chicago 50, Illinois

SOLA CONSTANT VOLTAGE TRANSFORMERS

Standard Constant Voltage Transformers. Regulation $\pm 1\%$		Electrical and Mechanical Specifications • 60 Cycle, Single Phase									
		Catalog Number	Output Capacity in VA	VOLTAGE		Dimensions in Inches*					Approx. Shipping Weight in Lbs.
				Input Range	$\pm 1\%$ Regulated Output	A	B	C	E	F	
 Typical Structure, Hermetic-Sealed Housing, 301002-3		30488	15	95-125	6.0	5 $\frac{1}{16}$	2 $\frac{5}{8}$	3 $\frac{1}{2}$	5 $\frac{1}{16}$	.....	6
		30492	15	95-125	6.3	5 $\frac{1}{16}$	2 $\frac{5}{8}$	3 $\frac{1}{2}$	5 $\frac{1}{16}$	.....	6
		30498	15	95-125	115.0	5 $\frac{1}{16}$	2 $\frac{5}{8}$	3 $\frac{1}{2}$	5 $\frac{1}{16}$	.....	6
		301002	15	95-125	6.3	5 $\frac{1}{4}$	3 $\frac{1}{2}$	2 $\frac{1}{4}$	3	1 $\frac{1}{2}$	2 $\frac{1}{2}$
		301003	15	95-125	115.0	5 $\frac{1}{4}$	3 $\frac{1}{2}$	2 $\frac{1}{4}$	3	1 $\frac{1}{2}$	2 $\frac{1}{2}$
 Typical Structure, Filament Regulators, 5-25 a			amps								
		20-04-030	5	95-130 x 190-260	6.3	4 $\frac{13}{16}$	3 $\frac{1}{8}$	3 $\frac{1}{8}$	2 $\frac{1}{2}$	2 $\frac{1}{8}$	6
		20-04-065	10	95-130 x 190-260	6.3	4 $\frac{13}{16}$	3 $\frac{1}{8}$	3 $\frac{3}{4}$	2 $\frac{1}{2}$	2 $\frac{11}{16}$	7
		20-04-095	15	95-130 x 190-260	6.3	4 $\frac{13}{16}$	3 $\frac{1}{8}$	4 $\frac{11}{16}$	2 $\frac{1}{2}$	3 $\frac{5}{8}$	11
		20-04-113	20	95-130 x 190-260	6.3	7	4 $\frac{1}{2}$	5 $\frac{1}{8}$	3 $\frac{5}{8}$	3 $\frac{3}{8}$	20
		20-04-116	25	95-130 x 190-260	6.3	7	4 $\frac{1}{2}$	5 $\frac{11}{16}$	3 $\frac{5}{8}$	4 $\frac{1}{8}$	23
		30804	30	95-125	115.0	8 $\frac{3}{8}$	4 $\frac{3}{8}$	4 $\frac{3}{8}$	7 $\frac{7}{8}$	2 $\frac{3}{8}$	12
		30805	60	95-125	115.0	8 $\frac{13}{16}$	4 $\frac{3}{8}$	4 $\frac{3}{8}$	8 $\frac{1}{8}$	2 $\frac{3}{8}$	13
		30806	120	95-125	115.0	9 $\frac{3}{4}$	4 $\frac{3}{8}$	4 $\frac{3}{8}$	9	2 $\frac{3}{8}$	17
		30888	150	95-125	115.0	10 $\frac{1}{4}$	4 $\frac{3}{8}$	4 $\frac{3}{8}$	9 $\frac{1}{2}$	2 $\frac{3}{8}$	18
30885	60	95-125	115.0	10 $\frac{3}{8}$	4 $\frac{3}{8}$	4 $\frac{3}{8}$	9 $\frac{5}{8}$	2 $\frac{3}{8}$	13		
30886	120	95-125	115.0	11 $\frac{1}{4}$	4 $\frac{3}{8}$	4 $\frac{3}{8}$	10 $\frac{1}{2}$	2 $\frac{3}{8}$	17		
30M705#	120	190-250	230.0	9 $\frac{3}{8}$	4 $\frac{5}{16}$	4 $\frac{3}{8}$	9	2 $\frac{3}{4}$	14		
#Terminals on exposed panel											
 Typical Structure, 250-1000 va ratings		20-13-125	250	95-130	118.0	11 $\frac{1}{8}$	6 $\frac{15}{16}$	6 $\frac{7}{16}$	3 $\frac{1}{4}$	6 $\frac{1}{8}$	24
		20-20-125	250	190-260	118.0	11 $\frac{1}{8}$	6 $\frac{15}{16}$	6 $\frac{7}{16}$	3 $\frac{1}{4}$	6 $\frac{1}{8}$	24
		20-13-150	500	95-130	118.0	12 $\frac{1}{2}$	6 $\frac{15}{16}$	6 $\frac{7}{16}$	4 $\frac{5}{8}$	6 $\frac{1}{8}$	36
		20-20-150	500	190-260	118.0	12 $\frac{1}{2}$	6 $\frac{15}{16}$	6 $\frac{7}{16}$	4 $\frac{5}{8}$	6 $\frac{1}{8}$	36
		20-24-150	500	190-260 x 380-520	236.0	12 $\frac{1}{2}$	6 $\frac{15}{16}$	6 $\frac{7}{16}$	4 $\frac{5}{8}$	6 $\frac{1}{8}$	36
		20-13-210	1000	95-130	118.0	15 $\frac{1}{8}$	6 $\frac{15}{16}$	6 $\frac{7}{16}$	4 $\frac{5}{8}$	6 $\frac{1}{8}$	52
		20-20-210	1000	190-260	118.0	15 $\frac{1}{8}$	6 $\frac{15}{16}$	6 $\frac{7}{16}$	4 $\frac{5}{8}$	6 $\frac{1}{8}$	52
		30811	2000	95-125	115.0	31 $\frac{1}{8}$	9 $\frac{1}{2}$	7 $\frac{7}{8}$	12 $\frac{1}{4}$	8 $\frac{1}{2}$	205
		30M811	2000	190-250	115.0	30 $\frac{3}{8}$	9 $\frac{1}{2}$	7 $\frac{7}{8}$	12 $\frac{1}{4}$	8 $\frac{1}{2}$	205
		30968	2000	190-250	230.0	30 $\frac{3}{8}$	9 $\frac{1}{2}$	7 $\frac{7}{8}$	12 $\frac{1}{4}$	8 $\frac{1}{2}$	205
 Typical Structure, 3-5 kva ratings		301706	3000	95-125 x 190-250	115.0	27 $\frac{11}{16}$	16 $\frac{1}{4}$	12	23 $\frac{1}{8}$	14 $\frac{1}{4}$	345
		301707	3000	190-250 x 380-500	230.0	27 $\frac{11}{16}$	16 $\frac{1}{4}$	12	23 $\frac{1}{8}$	14 $\frac{1}{4}$	345
		301704	4000	95-125 x 190-250	115.0	32 $\frac{11}{16}$	16 $\frac{1}{4}$	12	23 $\frac{1}{8}$	14 $\frac{1}{4}$	415
		301702	5000	95-125 x 190-250	115.0	39 $\frac{11}{16}$	16 $\frac{1}{4}$	12	34 $\frac{1}{2}$	14 $\frac{1}{4}$	485
		301703	5000	190-250 x 380-500	230.0	39 $\frac{11}{16}$	16 $\frac{1}{4}$	12	34 $\frac{1}{2}$	14 $\frac{1}{4}$	485
		301700	10,000	190-250 x 380-500	115.0	48 $\frac{1}{8}$	34 $\frac{1}{4}$	14	41 $\frac{1}{2}$	31 $\frac{1}{4}$	1025
301701	10,000	190-250 x 380-500	230.0	48 $\frac{1}{8}$	34 $\frac{1}{4}$	14	41 $\frac{1}{2}$	31 $\frac{1}{4}$	1025		

*DIMENSIONS—A: Overall Length; B: Overall Width;
C: Overall Height; E & F: Mounting Dimensions.

Specifications subject to change without notice.

SOLA CONSTANT VOLTAGE TRANSFORMERS

Harmonic Neutralized Transformer



$\pm 1\%$ Regulated Sine Wave Output with
less than 3% Harmonic Distortion.

Catalog Number	Former Catalog Number	Output Capacity in VA	Input Range	VOLTAGE		Dimensions in Inches					Approx. Shipping Weight in Lbs.
				Input Range	$\pm 1\%$ Regulated Output	A	B	C	E	F	
5003	.....	60	95-125		115	11 $\frac{3}{4}$	4 $\frac{3}{16}$	4 $\frac{1}{2}$	10 $\frac{3}{4}$	2 $\frac{5}{16}$	22
5004	.....	120	95-125		115	11	7 $\frac{1}{8}$	5 $\frac{7}{8}$	8 $\frac{3}{4}$	6 $\frac{1}{2}$	31
23-13-125	5005	250	95-130		118	11 $\frac{1}{4}$	9	6 $\frac{1}{16}$	5 $\frac{3}{8}$	8 $\frac{1}{8}$	32
23-13-150	5006	500	95-130		118	12 $\frac{3}{8}$	9	6 $\frac{1}{16}$	5 $\frac{3}{8}$	8 $\frac{1}{8}$	47
23-13-210	5008	1000	95-130		118	17 $\frac{15}{16}$	9	6 $\frac{1}{16}$	5 $\frac{3}{8}$	8 $\frac{1}{8}$	80
5010	.....	2000	95-125		115	20 $\frac{3}{8}$	26 $\frac{1}{4}$	9 $\frac{5}{8}$	12 $\frac{1}{4}$	24 $\frac{1}{4}$	315

Adjustable Regulated A. C. Voltage Supply

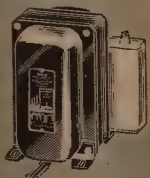


$\pm 1\%$ Regulated Sine Wave Output with less than 3%
Harmonic Distortion. Adjustable from 0-130 v.

One outlet regulated $\pm 1\%$ and adjustable from 0 to 130 volts. One outlet for fixed value 115 volts regulated $\pm 1\%$. Total harmonic distortion less than 3%. Regulating response 1.5 cycles or less. Self-protecting against short circuit. Portable for use in shop or laboratory.

Input 95-125 v; Output No. 1, 115 v; Output No. 2, 0-130 v; 60 cycle, single phase.						
Catalog Number	Output Capacity in VA	Dimensions in Inches			Approx. Shipping Weight in Lbs.	
		A	B	C		
50106	500	15 $\frac{3}{4}$	7 $\frac{1}{2}$	13 $\frac{5}{8}$	75	

Regulated Power Supply Transformer



$\pm 3\%$ Regulation for Plate and Filament Supply

A single, compact source of plate and filament supply voltages regulated to within $\pm 3\%$ or less, with line voltage variations of 100-130 volts. Each unit is furnished complete with capacitor and capacitor mounting bracket. The capacitor is not wired to the transformer, to permit maximum flexibility in mounting on the chassis.

itor mounting bracket. The capacitor is not wired to the transformer, to permit maximum flexibility in mounting on the chassis.

Input 100-130v., 60 cycle, single phase

Catalog Number	Typical Rectifier Tube	D.C. Input Volts To Filter	Filament Windings		Dimensions in Inches			Approx. Shipping Weight in Lbs.
			6.3 volts	5.0 volts	A	B	C	
7104	5Y3	275v D.C. @ 50 M.A.	2.5 amps C.T.	2.0 amps	4 $\frac{13}{16}$	3 $\frac{1}{8}$	3 $\frac{3}{16}$	5
7106	5Y3	385v D.C. @ 110 M.A.	3.0 amps C.T.	2.0 amps	4 $\frac{13}{16}$	3 $\frac{1}{8}$	3 $\frac{15}{16}$	8
7107	5U4	380v D.C. @ 250 M.A.	No. 1: 4.0 amps No. 2: 8.0 amps unregulated	3.0 amps	7	4 $\frac{1}{2}$	5	19

Constant Voltage Transformer for Television Receivers



$\pm 3\%$ Plug-in Regulator for Television Receivers and Other Appliances

Voltage regulation for home TV Receivers eliminates flicker and distortion due to line voltage variations. Moderate price . . . plug-in type . . . regulation $\pm 3\%$ or less.

Input 95-130 v, Nominal Output Value in 115-120 volt range; 60 cycle, single phase.						Typical Characteristics of 300 VA No. 7202 Transformer with 300 VA Load					
Catalog Number	Output Capacity in VA	Dimensions in Inches			Approx. Shipping Weight in Lbs.	Primary			Secondary		
		A	B	C		Volts	Amps	Watts	Volts	Amps	Reg.
7201	180	7 $\frac{1}{4}$	8 $\frac{1}{4}$	4 $\frac{3}{4}$	21	95	3.84	345	113.2	2.57	-2.84%
7202	300	7 $\frac{1}{4}$	9 $\frac{1}{8}$	4 $\frac{3}{4}$	28	117	3.28	360	116.5	2.62	
						130	3.28	368	117.9	2.66	+1.2%

See next page for regulated DC power supplies

Sola DC power supplies: compact, regulated, for high-amp loads

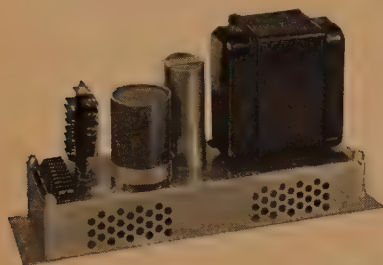
This combination of Sola Constant Voltage Transformer, germanium power rectifier, and high-capacitance filter yields a dc power supply compact in size, low in weight, and with other important advantages.

1. Output regulation of $\pm 1\%$ or less with $\pm 10\%$ line voltage variations.
2. Minimum output voltage change with wide, rapid load changes.
3. Low input power, with resultant good efficiency.
4. Ability to withstand high, short-time overloads without damage to components.
5. Ripple voltage of approximately 1% (rms) or less.
6. High overall economy by eliminating overload capacity needed in other types of power supplies for certain applications.

7. Low ratio of size and weight to power output.
8. Freedom from routine adjustment and maintenance.
9. Exceedingly low output impedance.

In addition to its important function of correcting line voltage variations, the Sola CV's inherent current-limiting action permits safe, economical use of the efficient germanium rectifier with its low forward voltage drop and other advantages. This same current-limiting action also permits use of high-capacitance filter sections by controlling excessive charging currents which might damage rectifier junctions. The high-capacitance filter yields very low ripple voltage without need for heavy, bulky choke components, with their substantial and often-varying load voltage drops.

FIXED DESIGNS



For
Intermittent, variable,
or pulse loads.

ELECTRICAL SPECIFICATIONS

All Inputs 100-130 volts, 60 cps

Catalog Number	Output Rating			Efficiency Approx. %	Ripple Voltage (rms)- % of Total	Approx. Shipping Weight Each Pounds
	Watts	Volts	Amps			
28156	144	24	6.0	72	Less Than 1%	45
28120	192	48	4.0	77	Less Than 1%	45
28152	250	125	2.0	82	Less Than 1%	55
28106	300	150	2.0	80	Less Than 1%	50
28193	200	200	1.0	76	Less Than 1/2%	45
28192	250	250	1.0	81	Less Than 1/2%	55

DIMENSIONS—Above six stock units have identical dimensions: overall length, 19"; overall width, 5 1/4"; overall height, 9 1/4". All supplies furnished with drilling for standard relay rack mounting.

ADJUSTABLE DESIGNS



Give all the advantages of fixed designs plus an output adjustable over a considerable range of voltages.

ELECTRICAL SPECIFICATIONS

All inputs 100-130 volts, 60 cps

Catalog Number	Adjustable Output Voltage Range	Rated Loadings in Amperes		Ripple* Voltage— % of Total Output	Approx. Shipping Weight Each— Pounds
		At max. Voltage Setting	At min. Voltage Setting		
28510	5-35	7.0		0.10	80
28520	25-60	4.0	6.0	0.05	80
28530	30-90	2.8	4.0	0.04	80
28540	60-180	1.4	2.0	0.03	80
28550	150-250	1.0	1.5	0.02	80
28560	250-400	0.6	0.75	0.02	80

*Figures in this column ripple voltages measured at full rated load and input of 115 volts.

DIMENSIONS—Above six stock units are for relay rack mounting on standard, 19" frame. Front panel is 7" high and chassis is 12 1/4" deep. Removable handles, for portability, are available as an accessory.

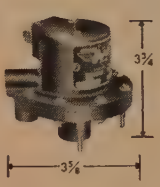
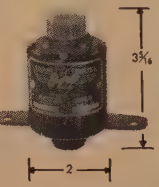
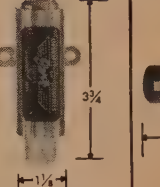
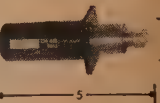
SOLA *Constant Voltage*
DC POWER SUPPLIES

SOLA ELECTRIC CO.
Chicago 50, Illinois

quick reference chart
for most often specified

AND
FILE

GORN SWITCHES & CONNECTORS

Complete Line of Tested Pressure and Float Switches Missiles and Aircraft	Vacuum & Absolute Pressure Switch	Altitude Switch	Differential Pressure Switch	Low Pressure Switch	Medium Pressure Switch	High Pressure Switch	Horizontal Float Switch
							
atalog Series	GAB1000*	GB300*	GP16000*	GP8000*	GP8060*	GPP12000*	GHF5400†
Weight	2.3 oz.	1.8 oz.	16 oz.	8.5 oz.	7 oz.	4.5 oz.	7.5 oz.
uation Setting nge of Tested ilable Models	3 to 25 psia	5000 to 60,000 feet	1" W.C. to 10 psig differential	1 to 100 psig	1 to 800 psig	75 to 3000 psig	On Horizontal Center Line
k. Oper. Press. roof Pressure urst Pressure	30 psia 45 psia 60 psia		10 psig 20 psig 30 psig	100 psig 200 psig 600 psig	800 psig 1200 psig 2400 psig	3000 psig 4500 psig 7500 psig	
Electrical Rating	SPDT 18-30 VDC 2.5A. Ind.	SPDT 18-30 VDC 2.5A. Ind.	SPDT 18-30 VDC 2.5A. Ind.	SPDT 18-30 VDC 5A. Ind.	SPDT 18-30 VDC 2.5A. Ind.	SPDT 18-30 VDC 2.5A. Ind.	SPDT 18-30 VDC 2.5A. Ind.
Temperature Ratings Available	-65 to 160F -65 to 275F -65 to 400F**	-65 to 160F -65 to 275F -65 to 400F**	-65 to 160F only at present	-65 to 160F -65 to 275F -65 to 400F**	-65 to 160F -65 to 275F -65 to 400F**	-65 to 160F -65 to 275F -65 to 400F**	-65 to 160F -65 to 275F -65 to 375F
Vibration Ratings up to 10G	5-500 5-2000 CPS	5-500 5-2000 CPS	5-500 5-2000 CPS	5-500 5-2000 CPS	5-500 5-2000 CPS	5-500 5-2000 CPS	5-500 CPS
Explosion Ratings to Specification	MIL-E-5272A	MIL-E-5272A	MIL-F-8615	MIL-F-8615	MIL-F-8615	MIL-E-5272A	MIL-F-8615

*Switches can be supplied either factory pre-set or with means for external adjustment. **Presently undergoing test.
†Also available in vertical, single, double and triple float arrangements.

GORN GOLD SEAL CONNECTORS In Melamine Or Plaskon Alkyd

GRA Series—Miniature Power Connectors for high voltage and current capacity; for No. 16 AWG.

GMRD Series SNAP-LOC—Available in GM series; for quick snap-action, separation and harness locking; contacts 7 to 50.

GH Series—Hex Miniature available with lock ring, spring and nut; hood and cable clamp; from 18 to 20 AWG; contacts 4, 5, 7, 9; also hermetically sealed.

GPC Series—Printed Circuit; will mate with printed circuit boards from .061 to .071 thick; with solder and solderless terminations; contacts 6, 8, 10, 12, 15, 18, 22.

GM Series—Miniature Rack and Panel from No. 18 to 20 AWG; contacts 7, 8, 9, 14, 18, 20, 21, 26, 34, 41, 50; also hermetically sealed.

GHR Series—Approved at 2000° for 5 min. per.; hood and cable clamp protects against vibration; for No. 16 AWG; contacts 1, 2, 3, 5.

GMRD Series—Rapid Disconnect; spring loaded receptacle; polarized guides prevent mis-mating; from 14 to 16 AWG; contacts 12, 18, 34.

GB Series—Heavy duty, high voltage connectors for aircraft power and communication equipment; can be supplied with any AN size 36 shell.

Enlargements of this advertisement available on request, for use as wall chart.
Write:

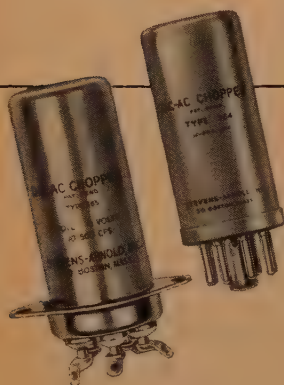
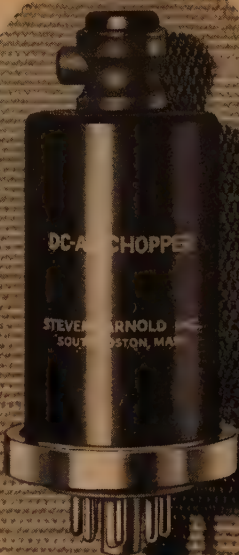
Gorn
ESTABLISHED 1923
GORN ELECTRIC CO., INC. STAMFORD, CONNECTICUT

FREQUENCY DOUBLER TYPES ALSO

DC-AC CHOPPERS

For 60 Cycle Use

There are twenty-two different types, both single and double pole, built to rigid commercial specifications with the emphasis on long life, low noise level, and extreme reliability. Please write for Catalog 370.



DC-AC CHOPPERS

For 0-500 Cycle Use

All the usual military specifications are met with liberal factors of safety. Before any Chopper is shipped, it is tested twice over the range of -65°C $+85^{\circ}\text{C}$ to give double proof of stamina. Each production lot sample life tested. Please write for Catalog 280.

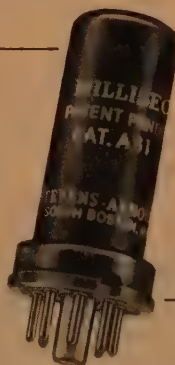
ULTRA HIGH SPEED RELAYS

Operating time 200 microseconds. Mount in any position. Will cover the range of -65°C $+85^{\circ}\text{C}$ and are factory sealed. Please write for Catalog 337.



RESONANT RELAYS

Permit remote control by radio or carrier current through frequency discrimination. Relays operate only when energized at rating and reject all other frequencies. Eleven types are offered in the range of 153-442 cycles. Please write for Catalog 335.



S/A-9 A

STEVENS-ARNOLD
INCORPORATED

22 ELKINS STREET, SOUTH BOSTON 27, MASS.



ELECTRONICS

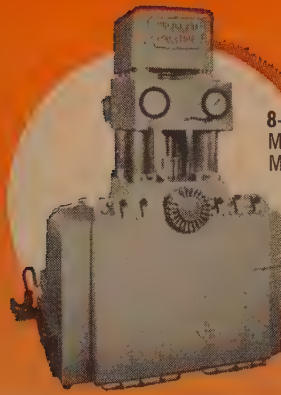
**OFFERS
COMPLETE
INDUSTRY
COVERAGE
WITH
A
TECHNICAL
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AND
2 BUSINESS
EDITIONS
EACH
MONTH
PLUS
THE
MID-YEAR
BUYERS'
GUIDE**



A MCGRAW-HILL PUBLICATION
330 WEST 42nd ST., N. Y. 36, N. Y.

Now...a battery of
Hydroforms at

Kaupp



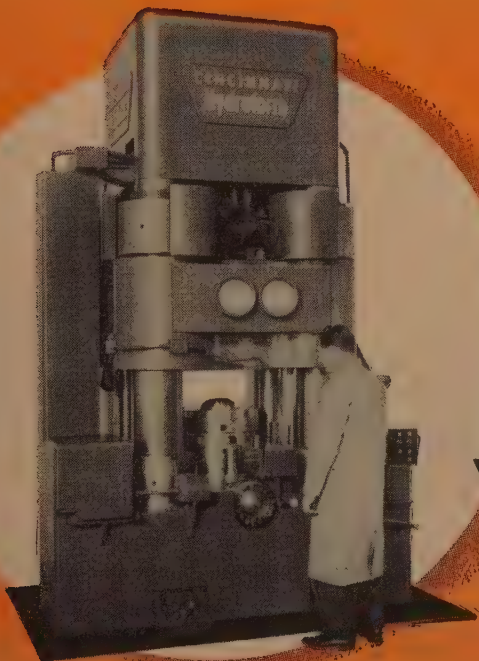
8-INCH HYDROFORM
Maximum Blank — 8" Diameter
Maximum Draw Depth — 5"

**— to reduce your development time and
costs on every pre-production run!**

Kaupp hydroformed prototypes and pre-production parts are accurately formed and drawn in less time, at lower cost. Hydroforming produces short run, and in some cases production pieces, quicker and more economically than tool and die methods. New equipment installed by Kaupp assures faster service. For complete information on Kaupp metal forming facilities, call or write today!

**FEWER DRAWING OPERATIONS
SIMPLER TOOLING
FASTER SET-UP
IMPROVED QUALITY**

Expanded Kaupp facilities include deep drawing by conventional methods for volume production runs and a completely equipped metal spinning department.



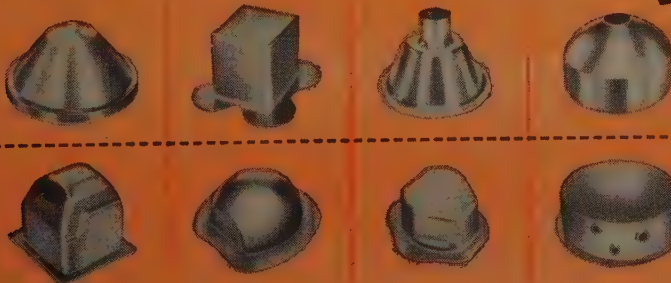
19-INCH HYDROFORM
Maximum Blank
19" Diameter
Maximum Draw
Depth — 8"

**Specify
KAUPP...**

for Accurate Forming and Drawing of Stainless Steel, Inconel,
Cold Rolled Steel, Aluminum, Copper, Brass and Other Alloys

C. B. KAUPP & SONS

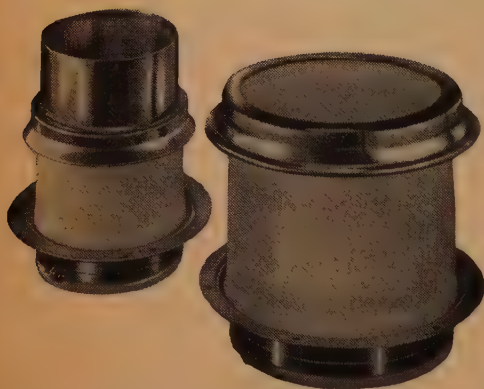
NEWARK WAY • MAPLEWOOD
NEW JERSEY



12-INCH HYDROFORM
Max. Blank — 12" Diameter
Max. Draw Depth — 7"



Lapp

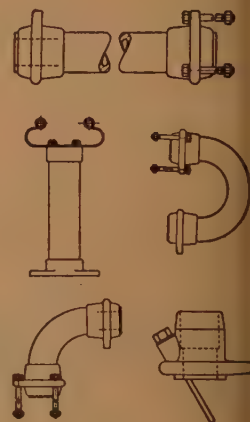


INSULATION FOR WATER-COOLED SYSTEMS

For carrying cooling water which must undergo a change in potential, use of Lapp porcelain eliminates troubles arising from water contamination and conductivity, sludging and electrolytic attack of fittings. Permanent cleanness and high resistance of cooling water is assured—for positive cooling and long tube life.

LAPP PORCELAIN WATER COILS

Twin-hole and single-hole models in sizes to provide flow of cooling water from 2 to 90 gallons per minute. Cast aluminum mounting bases, lead pipe or flexible metal hose for attachment.



LAPP PORCELAIN PIPE

Inside diameters $\frac{3}{4}$ " to 3", in straight, 90° and 180° elbows, fittings. Swivel-type connections. Standoff insulators attach directly to fitting bolts. *Write for Bulletin 301 with specifications for Lapp Porcelain Water Coils and Porcelain Pipe.*



LAPP GAS-FILLED CONDENSERS

Capacitance for high-voltage, high-current duty



The record of more than 18 years' service, in thousands of installations, proves the reliability of the Lapp Gas-Filled Condenser. For duty at high voltages and high currents, this unit offers the advantages of extreme compactness . . . low loss . . . high safety factor . . . constant capacitance under temperature variation . . . grounded tuning shaft . . . and rugged sturdiness. Units available in four tank diameters, 7" to 18" . . . in fixed or variable capacitance . . . capacitances to 30,000 mmf; current ratings to 390 amps at 1 mc; voltages to 85 Kv peak. Write for Bulletin 302.



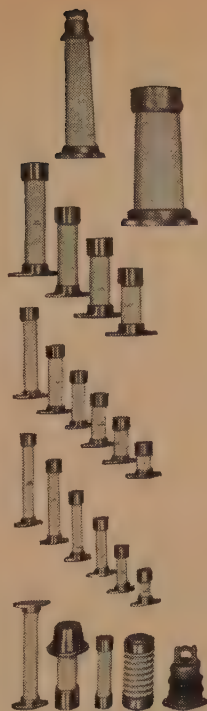
ENTRANCE INSULATORS

To eliminate losses which occur in ordinary types of bushings at radio frequency, Lapp units use air as major insulation, porcelain path being lengthened by its "bowl" shape. In wide variety of types for most electrical and mechanical requirements.

STAND-OFF INSULATORS

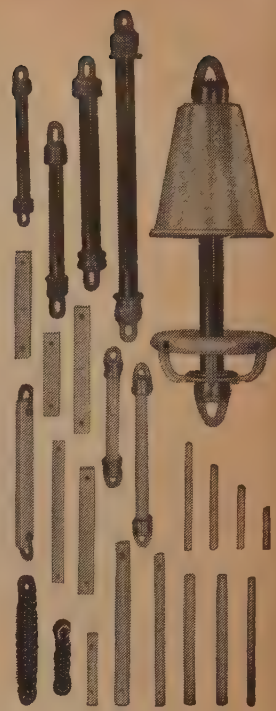
Dependable mechanical and electrical performance—and trim good looks. Hundreds of standard and special types available.

Write for Bulletin 301, listing entrance and stand-off insulators.

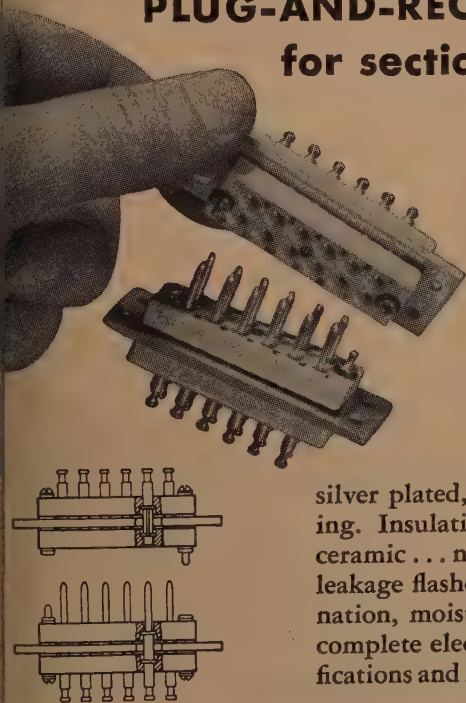


ANTENNA STRAIN INSULATORS

The largest of the porcelain rod insulators shown develops 12,000 lb. strength. Available, as specified, with rain shield and/or corona rings. Smaller units, in porcelain or steatite, for all strain or spreader use. Engineering and production facilities also available for special performance units. See catalog 301.



PLUG-AND-RECEPTACLE UNITS for sectionalizing circuits

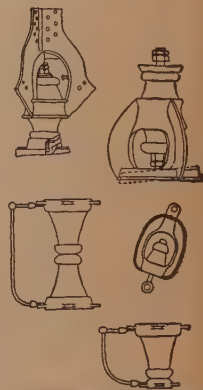


For panel-rack or other sectionalized circuits, Lapp offers a variety of plug-and-receptacle units. Any number of contacts can be provided (in multiples of twelve). Male and female contacts are full floating, for easy alignment and positive contact. Contacts

silver plated, terminals tinned for soldering. Insulation is steatite, the low-loss ceramic... non-carbonizing even under leakage flashover resulting from contamination, moisture or humidity. Write for complete electrical and mechanical specifications and recommendations.

ANTENNA TOWER INSULATORS

Most of the world's radio towers are supported by Lapp insulators, including the tallest guyed mast ever built. Through the Lapp "compression cone," immense loads can be carried by electrical porcelain. Write for data on Lapp footing insulators for self-supporting radiators, mast-base insulators, or guy insulators.



SPECIAL ASSEMBLIES

Lapp business is electrical porcelain, its application, design, manufacture, and assembly. Our skill is in our knowledge of the capabilities, and limitations, of ceramic insulation... in engineering ingenuity to meet specified requirements... and in efficient production. If you have need for insulating parts and associated sub-assemblies, we may be able to show you how they can be made most economically, to perform most efficiently.

Lapp

LAPP INSULATOR CO., INC.
RADIO SPECIALTIES DIVISION
100 SUMNER ST., LEROY, N.Y.

BIRD COAXIAL LINE INSTRUMENTS

"ThruLine" DIRECTIONAL RF WATTMETERS

MODEL 43



Direct Reading

25-1000 megacycles . . . 10W — 100KW . . . "thru" type . . . for power measurement in complete systems under operating conditions . . . insert between transmitter and antenna or load to provide an accurate and simple means of measuring direct or reflected power . . . plug-in elements determine full scale power range and frequency range. Get Bulletins W-400 for detailed specifications.

Model	Line	Impedance	Frequency Range	Full Scale Power	Connector
43	RG-8/U etc.	50 ohms	25-60; 50-125 100-250; 250-500; 400-1000 mc	10; 25; 50; 100; 250; 500 W	N; C; HN; UHF
4712	1 1/4"	50 ohms	200-500 400-1000 mc	.5; 1.0; 1.5; 2.5; 5.0 KW	Rtma Std.
460	3 1/4"	50 ohms	200-500 mc	1; 2.5; 5; 10	Flange
480	3 1/4"	51.5 ohms	400-1000 mc	25; 50 KW	Sleeve Bullet
490	6 1/4"	51.5 ohms	200-500 mc	25; 50 and 100 KW	

"Termaline" RF ABSORPTION WATTMETERS

MODEL 611



Accurate

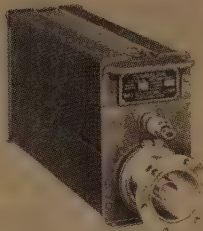
30-500 megacycles . . . 1/2 watt-5 KW . . . "load" type . . . portable . . . direct reading wattmeter . . . accuracy $\pm 5\%$ of full scale . . . non-radiating load for power measurement. For complete specification on all available models, write for Bulletins TW-600.

Model	Freq. Range	Max. Power	Power Range Scales	Input Connector
611	30-500 mc	60W	0-15; 0-60	Female N
612	30-500 mc	80W	0-20; 0-80	
67	30-500 mc	500W	0-25; 0-100; 0-500	Coplanar with adapter to UG-21/U; (optional) RG-17 & RG-19 cable assemblies: adapters to rigid lines
67C*	30-500 mc	2500W	0-100; 0-500; 0-2500	
824*	30-220 mc	5000W	0-5000	

*Water cooled (other available models described in specification sheets)

"Termaline" RF LOAD RESISTORS

MODEL 888



Reflection-Free

Designed to terminate 50 ohm coaxial line with minimum reflection . . . low VSWR . . . non-radiating . . . water cooled ratings 2500 W to 50 KW . . . air cooled ratings to 1500 W . . . ratings can be increased by forced air externally applied. For detailed specifications get Bulletins R-800.

Model	Max. Power	Freq. Range	Max.* VSWR	Connector
80	5W	0-1KMC	1.1	N Female
80A	20W	0-500MC	1.1	
81	50W	0-1KMC	1.1	
81B	80W	0-1KMC	1.1	Coplanar with adapter to UG-21/U
82A	500W	0-1KMC	1.1	
883	1.2KW	0-1KMC	1.1	LC
888	1.5KW	0-1KMC	1.1	3/4" Flanged

*Other VSWR requirements can usually be met by special selection.

COAXIAL SWITCHES

MODEL 74
(Cutaway View)

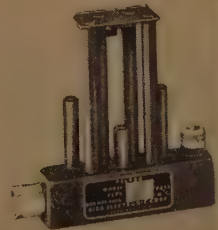


Dependable

Small compact design permits the "Coaxswitch" Selector to be incorporated into many electronic units where repeated channel switching is required. Finger-tip operation — pull knob, rotate and push in to make contact. Bulletin CS-6 contains full specifications.

Model	74	71B	72R	72-2
Positions	Six	Eight	Reversing Switch	Two
Coaxial Circuits	One	One	Two	Two
Connector	Type N female connectors are standard on all models to receive UG-21/U series plug. Use adapters with other cables and connectors.			

COAXIAL RF FILTERS



Rugged

High pass . . . low pass . . . band pass . . . band elimination . . . designs utilize both distributed and lumped constant . . . feature low insertion loss and high stop band attenuation . . . many designs available . . . "know-how" and physical facilities for quantity production . . . Get Bulletin CF-6.

	Low Pass	Low Pass	Low Pass	Low Pass	High Pass	Band Pass
Model*	5310	5311	522	819-1200	530	5131
Cut Off	90 mc	160 mc	400 mc	1200 mc	420 mc	45 mc & 105 mc
Stop Band	100- 180 mc	180- 320 mc	500- 2000 mc	1900- 4000 mc	100- 390 mc	33.7- 39.7 mc 120- 1000 mc
Max. Power	100W	100W	150W	100W	50W	25W
VSWR in p.b.	1.5	1.5	1.35	2 to 1	2.5	1.6
Connectors	Female N		Male-Female N		Female BNC	

*Other model specs on request.

NEW BIRD CATALOG

Write in for your
copy now!



Complete RF POWER ABSORPTION AND MEASUREMENT

BIRD ELECTRONIC CORPORATION

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ALSiMAG[®]

advanced
ALUMINA CERAMICS

with new

HIGH

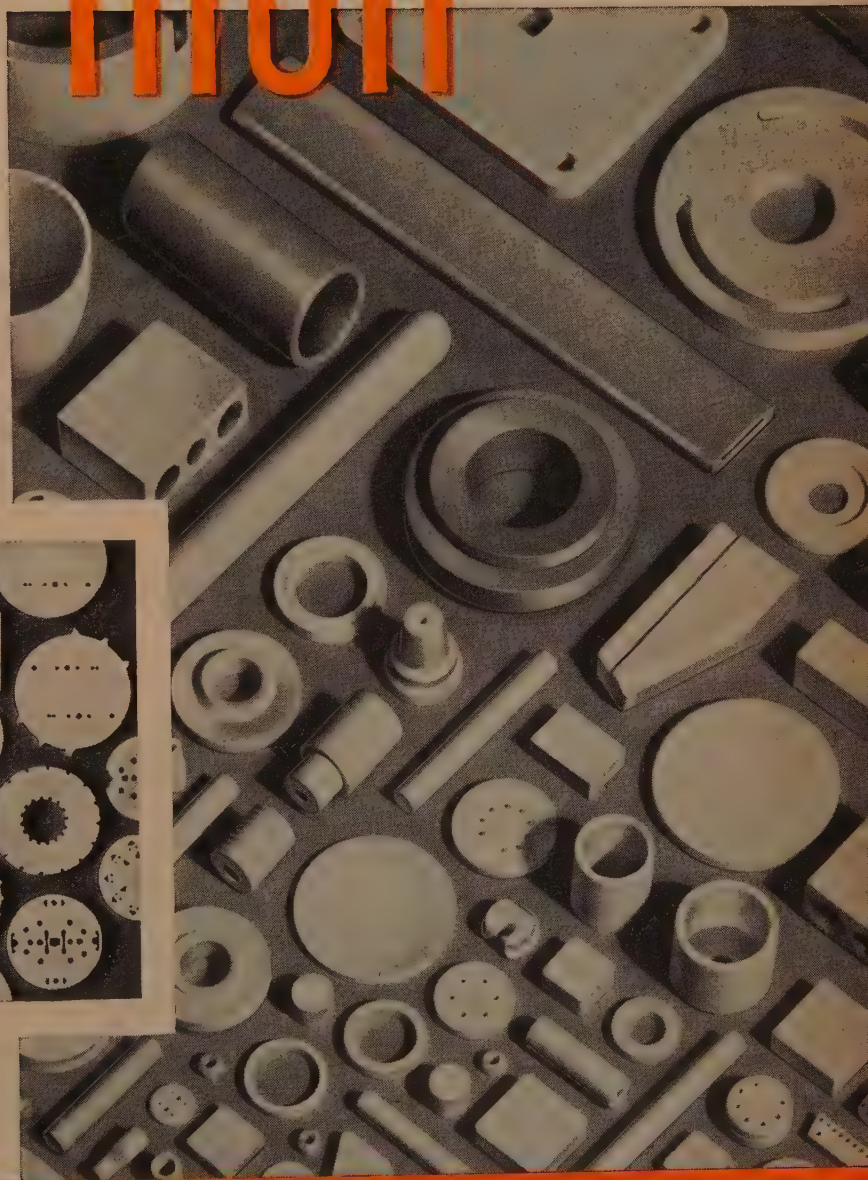
temperature

strength

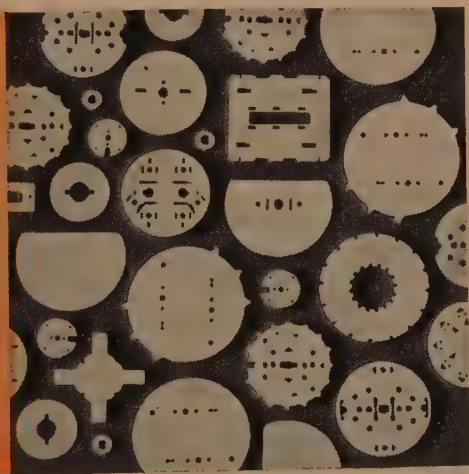
quality

production

Greatly enlarged facilities now produce high quality, pace-setting ALSiMag Alumina ceramics in quantity lots. Complete range of up-to-the-minute Alumina compositions now permit you to design to higher temperatures and higher strengths. Advantages include improved electrical characteristics at elevated temperatures—beyond the melting point of most metals. Higher tensile and impact strengths. Greater resistance to corrosion and abrasion. Smoothness of texture. Close dimensional tolerances. Custom formulations for special needs.



Volume production
complete range of
precision parts,
including electron tube
bases processed to be
highly porous,
readily degassed,
thicknesses
as low as .009".



• An outline of your requirements, enclosing a blueprint or sketch, will bring you full details.

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LEADERSHIP

AMERICAN LAVA CORPORATION

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A Subsidiary of
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Select your semiconductors from industry's widest line... a line that is designed to answer your circuit needs. When you buy TI you are assured the reliability your applications require—with closely controlled parameters, unit interchangeability and the economy that follows when you buy from the leader in semiconductor mass production.

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For your high frequency, high power and other applications, choose from TI's complete germanium line including high frequency, VHF, switching, radio-circuit converter and IF, audio output and phototransistors... a line that gives you the widest choice on the market today.

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For your high temperature (to 150°C) switching, medium power, high power, high frequency, and small signal applications, select from tough, reliable TI silicon transistors... designed to meet MIL specs and the demands of automated production processes.

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Delivery in TI semiconductors and components...
military systems... industrial instrumentation



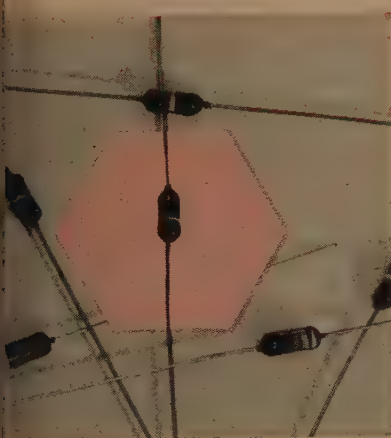
SILICON RECTIFIERS

New design freedom and reliability for your future high voltage power supplies! You can use bulky, fragile 5R4, 5U4 and JAN 6X4 rectifier tubes with TI single junction rectifiers in applications. In a fraction of the space you get instant operation at high temperatures with filament power... when you use TI 1500-volt silicon rectifiers.

SEMICONDUCTOR - COMPONENTS DIVISION

BOX 312

DALLAS, TEXAS



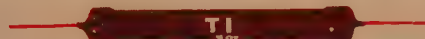
SILICON DIODES

For higher voltage operation and new highs in forward conductance... plus extremely low power, look to new, ruggedized TI glass diodes. When you use TI diodes you are insured the stable performance, high uniformity and greater heat dissipation your circuits require. TI 100%-tested silicon junction diodes are especially advantageous under extreme heat, shock and vibration conditions... giving you stability, reliability and long service life.

SEMICONDUCTOR - COMPONENTS DIVISION

BOX 312

DALLAS, TEXAS



PRECISION CARBON FILM RESISTORS

Providing you with outstanding reliability and accuracy at economical prices, TI precision carbon film resistors are supplied in six sizes from 1/4 to two watts with resistance values from 25 ohms to 30 megohms; 1, 2 or 5% tolerances. Special values, modifications and tolerances will be supplied at your request.

MIL-Line—Far exceed MIL-R-10509B specifications for characteristic X. They show an average resistance value change of only 0.092%—after 18 months of shelf life—and have an exclusive coating which protects them from the effects of moisture.

Hermetically Sealed—solder sealed in a pure ceramic shell and fully insulated for maximum protection and reliability... meet specifications for characteristic B of MIL-R-10509B.

Industrial Line... economical precision resistors with the close tolerance required in instrument and industrial uses where military approval is not required.



PRECISION PANEL METERS

You will find the precision meter your applications require in TI's line of bakelite, ruggedized and hermetically sealed panel meters... available in a wide range of shapes and styles... in sizes from 1 1/2 to 4 1/2 in. All TI meters exceed MIL-M-6A and MIL-M-10304A. All provide you with long service life and lasting calibration at economical prices.

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P. O. BOX 312

DALLAS, TEXAS

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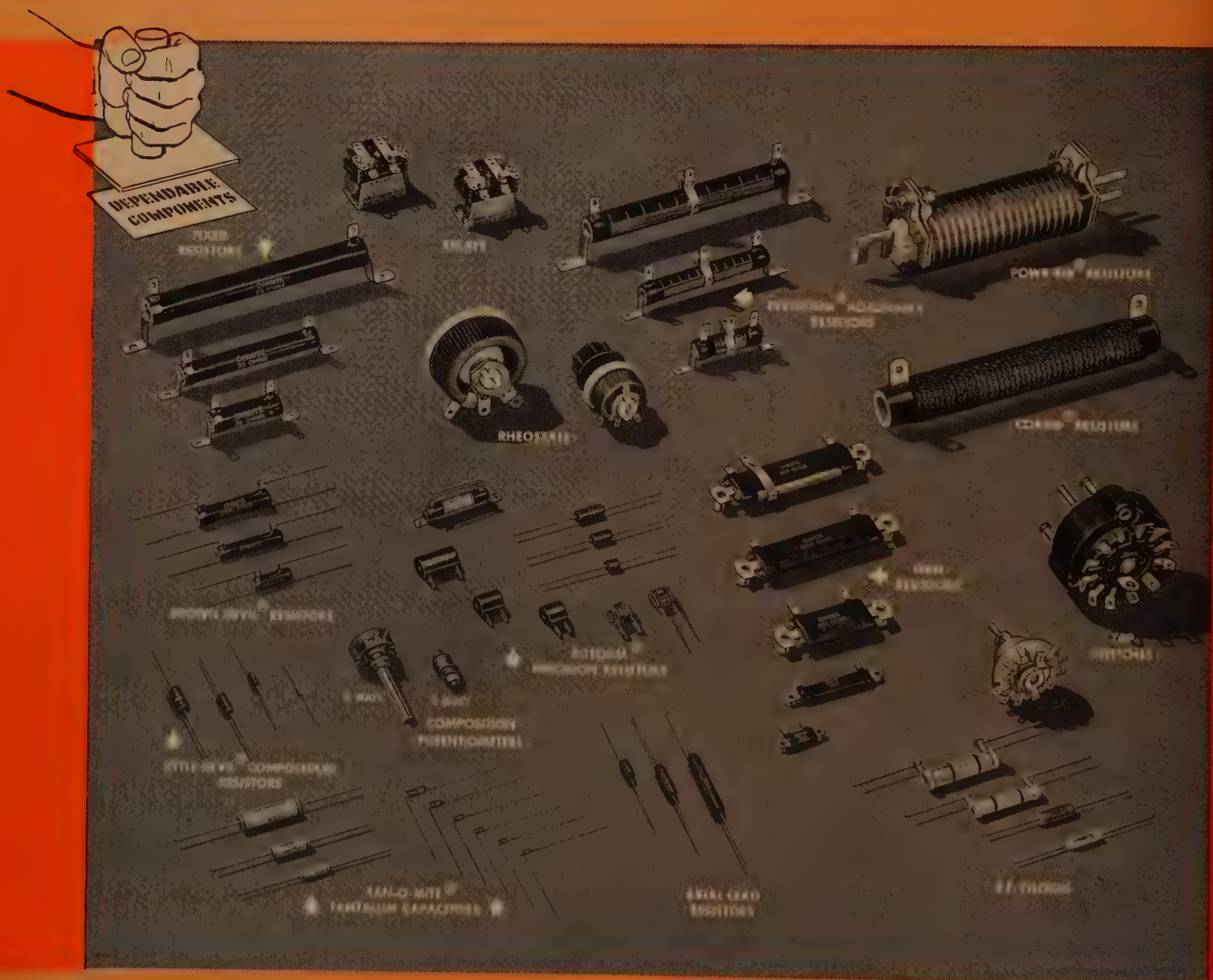
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NEW OHMITE[®]

TAN-O-MITE[®]

TANTALUM CAPACITORS

The new Tan-O-Mite[®] line of wire-type subminiature capacitors features six sizes which collectively offer sufficient range and flexibility to satisfy the design needs of any manufacturer of miniaturized equipment. Sizes "S" and "T" constitute the smallest units of this type available. (Note dimensions in table below.) Tan-O-Mite[®] foil-type and wire-type tantalum capacitors both feature greater capacitance per unit volume, lower leakage current and power factor, and small capacitance drop at extremely low temperatures as compared to other types of electrolytics. Ohmite engineers will work with you on your design requirements.

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FOR -55°C TO $+85^{\circ}\text{C}$ OPERATION

HIGH CAPACITANCE

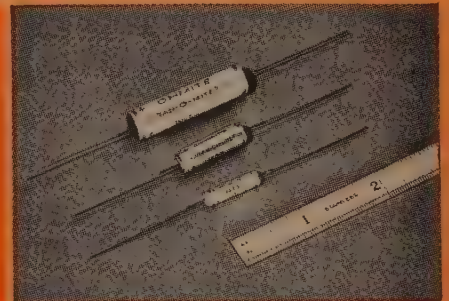
SUBMINIATURE SIZES

LONG SHELF LIFE



SERIES TW, SUBMINIATURE, WIRE-TYPE TANTALUM CAPACITORS

Ultrasmall for low-voltage DC transistorized electronic equipment, these new units provide substantial savings in circuit space plus high quality and long, reliable operation. Available in six subminiature sizes; 0.1 to 60 mfd. over-all capacitance range. Smallest size .075 x .156 inches; largest .125 x .500 inches. Five stock sizes in a wide range of capacitances and voltages. Capacitors can be supplied insulated with a tough Mylar plastic sleeve for application in confined locations near metal parts. Leads are normally axial on these units. *Bulletin 148.*



SERIES TF, FOIL-TYPE TANTALUM CAPACITORS

Three sizes now available in limited quantities for engineering evaluation and use.

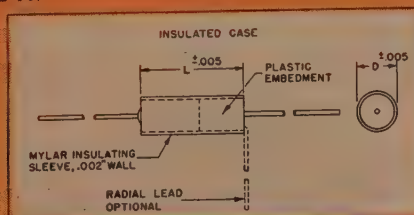
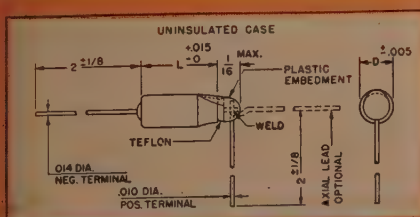
Capacitors are tantalum foil, electrolytic-type units designed for low voltage AC and DC applications. Available in three sizes; .25 to 140 mfd. over-all capacitance range. Working voltage up to 150 volts. Polar and nonpolar units are available. *Bulletin 152.*

SIZE	UNINSULATED		INSULATED	
	D (inches)	L (inches)	D	L
T	.075 (5/64)	.156 (5/32)	.082	.203
S	.075 (5/64)	.187 (3/16)	.082	.234
M	.095 (3/32)	.172 (11/64)	.100	.218
A	.095 (3/32)	.250 (1/4)	.100	.312
B	.125 (1/8)	.312 (5/16)	.134	.375
C	.125 (1/8)	.500 (1/2)	.134	.562

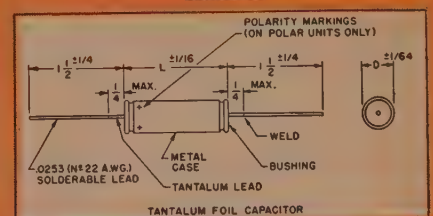
TANTALUM FOIL CAPACITOR		
CASE SIZE	D*	L*
J	3/16"	11/16"
K	9/32"	7/8"
L	3/8"	1-7/16"

*Add 1/16" to L and 1/64" to D when insulating sleeve is used.

SERIES TW



SERIES TF



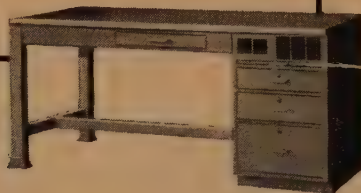
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Formica Company offers the industry the latest development in electronic laboratory furniture and equipment — test benches and units made up of prefabricated sections, factory assembled from stock to suit the special requirements for your individual application.



These testing units offer unusual space-saving arrangements. Through their design, available working area has been increased at least 50% over that in other types now in use. For more information write for brochures and specifications.

Designed by engineers for engineers, with serviceability in mind — the individual sections are constructed to afford the greatest number of varied selections and combinations. Made of heavy-gauge furniture steel, Formica's benches are sturdy and can take a beating, yet are modern in style and practicability, to meet today's laboratory needs.



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TYPE
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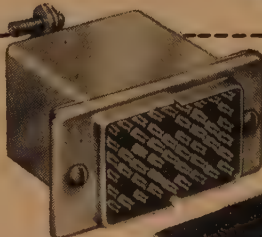
3301—Combination Transistor Socket with Flat Saddle



3304—Combination Transistor Socket with Mounting Ring



Series 7000 P. C. Varicon Connector



Series 8000 Sub-Miniature Varicon Connector

For Detailed Bulletins: ELCO CORPORATION, M below Erie, Phila. 24, Pa., CU 9-5500

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Our "Microlab Memo," a semi-technical quarterly devoted to coaxial components, will be sent on request.

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How to choose magnetic tape recorders for data

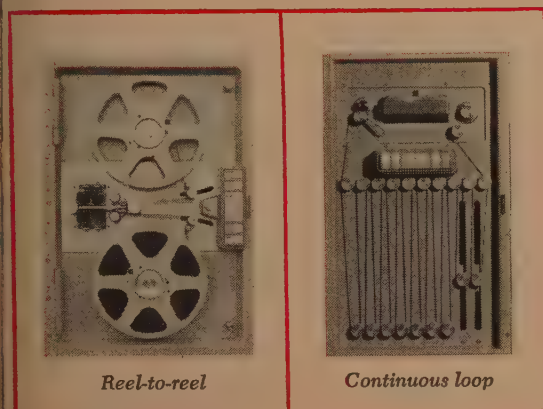
Types, performance and sources of further information

A magnetic tape recorder for your particular use is chosen from hundreds of possibilities, and yet from Ampex it can almost always be a standard production-line model. There are three reasons:

(1) Ampex offers the broadest available selection of basic types.

(2) Ampex modular design permits innumerable combinations of standard components to fit individual needs.

(3) By designing for the most critical user requirements, Ampex achieves performance standards ample for almost all practical uses.



Reel-to-reel

Continuous loop

TYPES OF TAPE TRANSPORTS

Reel-to-reel recorders are the most familiar. They record over relatively long time intervals, hence are almost always used for acquiring permanent data.

Continuous-loop recorders recycle on a definite time interval, either to provide a cyclic repetition of a length of data or to act as a time-delay device. The Ampex FL-100 is of this type.

Digital recorders, a special variation of reel-to-reel, are characterized by extremely rapid start-stop characteristics for close pulse packing. The Ampex FR-200 is typical.

"Transportable" recorders with varying degrees of portability are available from Ampex. Even Ampex's "fixed" recorders, FR-100 and FR-1100 may be mounted in a truck or trailer. But recorders like the Ampex 800 are built for true mobility, hence are light, compact and resistant to shock and vibration. Ampex also has miniaturized designs.

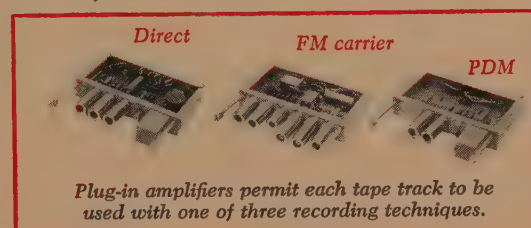
TYPES OF RECORDING

Most Ampex models use interchangeable plug-in amplifiers that enable each track to be used with any of three recording techniques:

Direct recording has frequency response of 100 to 100,000 cycles/sec. at 60 in/sec. tape speed. This high response is its greatest advantage and is utilized either directly or for multiplexed data.

FM-carrier recording has high instantaneous amplitude accuracy with frequency response of 0 (DC) to 20,000 cycles at 60 in/sec. It is used for transients, low frequencies and wherever accurate reproduction of amplitude is important.

PDM recording (pulse-duration modulation) can time-multiplex as many as 85 channels of data onto each tape track (data from 0 (DC) to a few cycles per second). PDM provides high accuracy and easy convertibility to digital form.



OTHER CONSIDERATIONS

Tape widths of quarter, half and one-inch width with 2, 3, 4, 7 and 14 parallel tracks are Ampex standards.

Commonly furnished tape speeds are 60, 30, 15, 7½, 3¾ and 1½ in/sec. Others are available. Recorders have up to eight speeds.

Time-base accuracy within 2 parts in 100,000 can be provided with standard Ampex accessory equipment.

Compatibility (for tape interchange) between Ampex recorders of same or different models is an important Ampex advantage.

Full performance specifications are available in literature on individual series.

A general application brochure and literature on individual models are available upon request. Ampex's Field Sales Engineers will be pleased to answer your inquiry with specific information on any requirement. Write Dept. H-57.



MAGNETIC
TAPE
RECORDERS
BY AMPEX

'57
BUYER'S GUIDE



Series FR-100



Series 800 Mobile
and Airborne



Model FR-200
Digital



Series FL-100
Loop Recorders



Series FR-1100

INSTRUMENTATION
DIVISION

AMPEX
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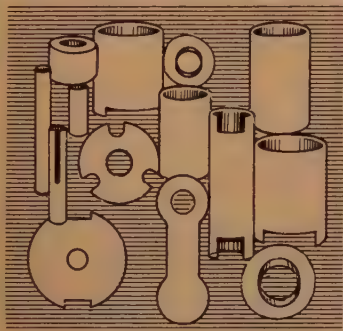
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McCoy

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TYPE
M-1

RUGGED CRYSTAL UNITS

and Subminiature

The McCoy "McMite." Hermetically sealed precision unit incorporates standard size stability, dependability and performance into a subminiature size. Meets all military specifications in its range from 5 mc. to 125 mc. For plug-in type specify M-21.



TYPE
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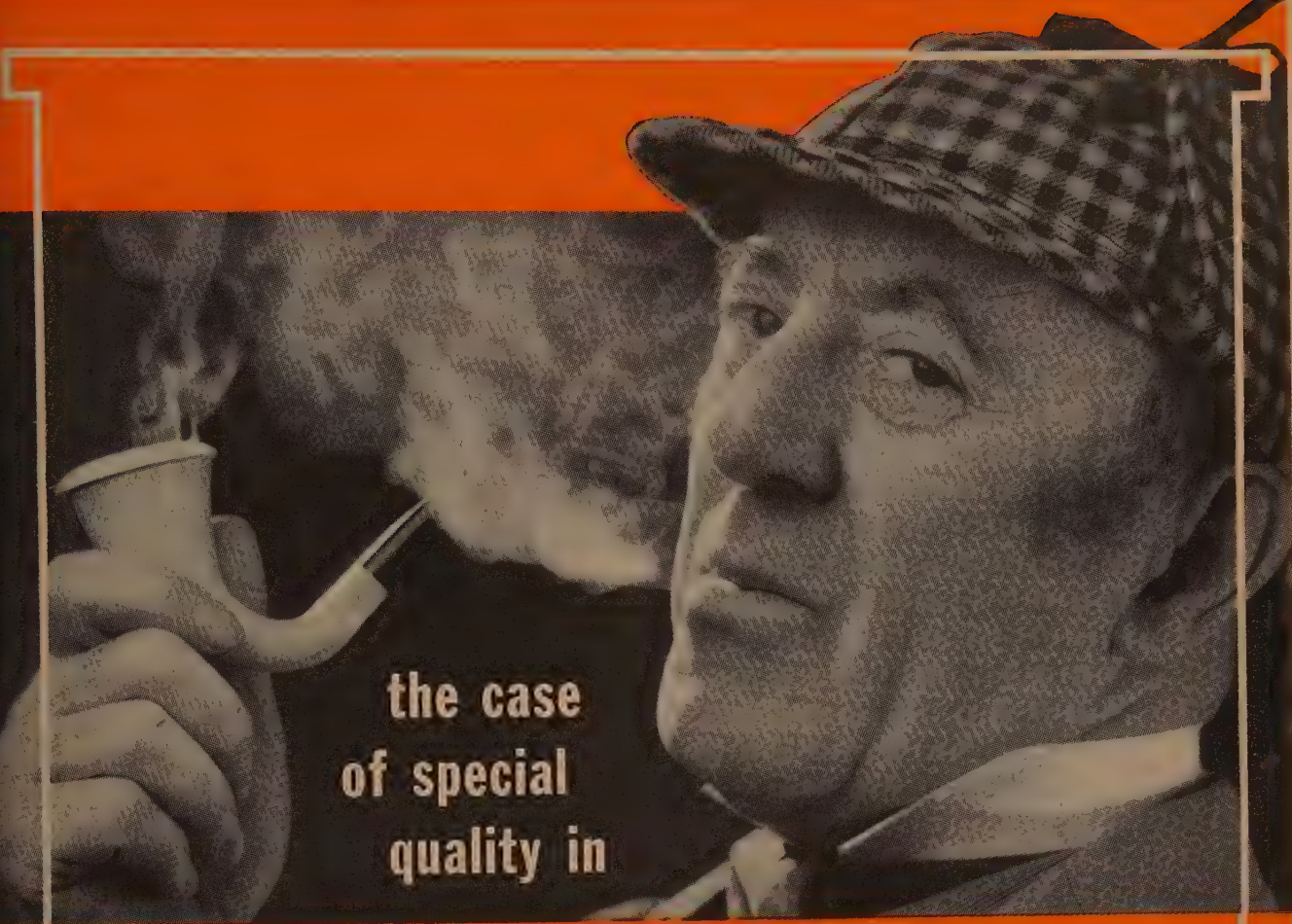
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PRECISION

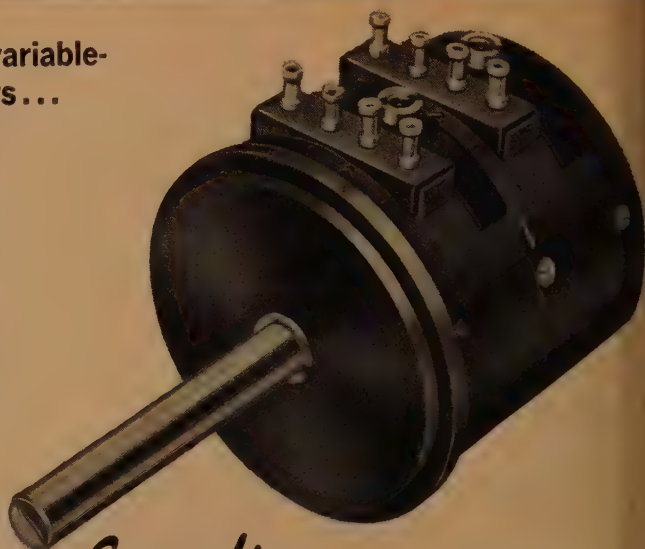
For the ultimate in variable-phase potentiometers...

TM

VARI/PHASE

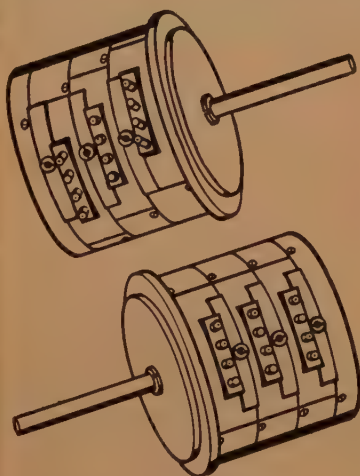
Single-turn, independently-adjustable, ganged precision potentiometers meeting the most critical control requirements. Designed to meet the specifications as set forth by A.I.A. (Aircraft Industries Associated) for precision potentiometers.

Many and marked improvements over previous designs. Phasing accomplished by rotating the winding within the housing. Winding and terminal board combined in single assembly and fitted in housing. Usual clamping bands are eliminated. Saves space, without loss of resolution. Specifications in adjacent table. Drawings of each type, sent on request.



Consult **CLAROSTAT...**

Whatever your control or resistor requirements may be, make full use of Clarostat's engineering collaboration for the logical and economical solution. Also note that many other types of potentiometers are available from Clarostat.



DIFFERENT — and BETTER!

Simplified phasing! External and independent phasing of each cup without affecting relationship with others. To phase, loosen nut, adjust, tighten nut. That's all. Adjustments can be made before or after mounting. Also to compensate for wear and component aging.

SPECIFICATION	SERIES 54-14	SERIES 54-17	SERIES 54-26	SERIES 54-32	SERIES 54-48
Power Rating (watts) @ 40°C.	1.5	2	3	4	5
Diameter	7/8"	1-1/16"	1-5/8"	2"	3"
Depth					
Single section	0.672	0.578	0.968	1.000	1.000
Each additional cup add	0.375	0.375	0.580	0.580	0.580
Weight (lb.) approx.					
Single section	0.035	0.060	0.120	0.140	0.280
Each additional cup add	0.015	0.030	0.060	0.070	0.140
Insulation — Breakdown test between terminals and ground for 1 minute	1000 v. a.c./d.c.	1000 v. a.c./d.c.	1000 v. a.c./d.c.	1000 v. a.c./d.c.	1000 v. a.c./d.c.
Resistance Range (Ohms) — Standard	to 20K Ω	to 30K Ω	to 100K Ω	to 100K Ω	to 200K Ω
Resistance Tolerance — Standard	$\pm 5\%$	$\pm 5\%$	$\pm 5\%$	$\pm 5\%$	$\pm 5\%$
Linearity	$\pm 1\%$	$\pm 1\%$ closer Available	$\pm 1\%$ closer Available	0.5% closer Available	0.5% closer Available
Tapers — Submit Requirements	— — —	Available	Available	Available	Available
Taps	Available	Available	Available	Available	Available
Rotation					
Continuous	360°	360°	360°	360°	360°
Mechanical					
Limited	as required	as required	as required	as required	as required
Electrical	320° min.	320° min.	320° min.	320° min.	320° min.
Effective	300° $\pm 2^\circ$	300° $\pm 2^\circ$	300° $\pm 2^\circ$	300° $\pm 2^\circ$	300° $\pm 2^\circ$
Torque — Per section Standard (Lower or higher available.)	Less than 1 oz. in.	Less than 1 oz. in.	Less than 1 oz. in.	Less than 1 oz. in.	Less than 1 oz. in.
Mountings	Servo or Bushing	Servo or Bushing	Servo or Bushing	Servo or Bushing	Servo or Bushing
Ganged Construction to practical limits	Available	Available	Available	Available	Available

Products of

"THE HOUSE OF RESISTORS"

*Reg. U.S. Pat. Off.

POTENTIOMETERS

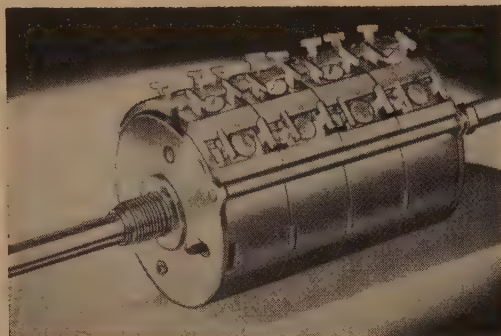
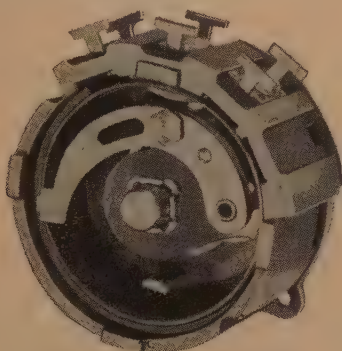
STANDARD or SPECIAL...

Clarostat's extensive tooling and production facilities provide for the widest choice of **standard** types. Add Clarostat's well-known ingenuity, and you can have **special** types. Save development delays, tooling costs, production setup charges. Try Clarostat first!

CLAROSTAT SERIES 42

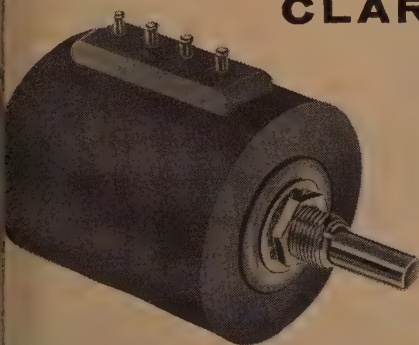
superlative potentiometer of flexible design for many and varied applications. Used singly or ganged.

low-loss phenolic case. Interlocked sections rigidly held together by threaded rods and metal end-plates. Taps mechanically fixed on housings, and electrically positioned, to meet requirements. Series 42 exceeds applicable JAN-R-19 specs.



Resistance Range (Linear) 10 to 100,000 ohms.
(Non-linear) Max. 350 ohms per degree of rotation.
Resistance Tolerance Standard overall $\pm 5\%$
Special, $\pm 0.5\%$.
Linearity (standard) $\pm 1\%$; $\pm 0.5\%$ special.
Power Rating 3 watts, at 40°C .
Rotation (Effective) 280° ; Max. 358° .
Rotation (Mechanical) Up to 340° with stops.
Continuous if desired.
Torque 1 oz./in. max. per section.

CLAROSTAT SERIES 55

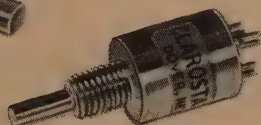


encapsulated version of multi-turn Series 55.

Multi-turn wire-wound potentiometers in heavy-duty metal housings. Also in encapsulated versions for maximum climatic protection.

The $\frac{1}{2}$ " dia. Single-Turn Potentiometer is especially intended for high-temperature operation in limited space.

Series 55 Multi-Turn Potentiometers are available in five sizes: $\frac{5}{8}$ ", $\frac{7}{8}$ ", 1", $1\frac{1}{2}$ " and $1\frac{3}{16}$ " dia.



$\frac{1}{2}$ " dia. single-turn unit.

Many variations available, such as encapsulated, shielded, plug-in terminals, terminal board, printed-circuit terminals, hermetic-sealed terminals, terminals for plug-in adapters, as well as taps on 1" dia. size and up. Available in gang assemblies from $\frac{7}{8}$ " size and up.

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Only three of the Clarostat precision potentiometer series are presented here. Many other designs available—wire-wound, composition-element, molded composition-element, miniaturized, standard radio/TV controls, power rheostats, etc. Also widest choice of resistors. Write for Engineering Data.

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Amperex



AX586B



DX151



6961

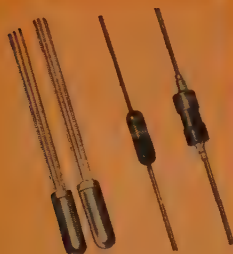


6757



5551-A

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2-2N-282's

1N478-9



5894



063/85A2

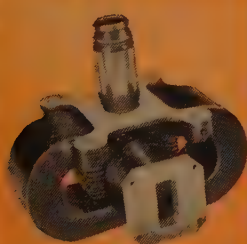


5870



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120NB	77.50
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150NB	52.50
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240N	35.00
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5553-B	216.00
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EM81	2.45

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6977	3.50

REFLEX KLYSTRON	
2K25	39.50

KLYSTRONS	
DX122	**
DX123	**
DX124	**

MAGNETRONS	
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6CA7	4.35
EL84	2.40
EF86	2.75

PENTODES Secondary Emission	
EFP60	8.75

PENTODES—Subminiature	
6007/5913	1.50
6008/5911	1.50

Type No.	Price
HI-FI VACUUM RECTIFIERS	
GZ34/5AR4	\$3.50
EZ80	1.50
EZ81/6CA4	1.60

MERCURY RECTIFIERS	
575A	20.00
673	20.00
857B	218.50
866AX	2.65
869B	138.00
872AX	8.20
6508	80.00
6693	30.00
8008	8.20

VACUUM RECTIFIERS	
5R4GY	2.65
8020AX	15.00

XENON RECTIFIERS	
3828	7.60
4832	12.00

VOLTAGE REFERENCE TUBES	
OE3/85A1	2.50
OG3/85A2	2.50
5651	2.30

VOLTAGE REGULATORS	
OA2	1.75
OB2	1.90
90C1	2.50
6354/150B2	3.00

TETRODES	
4X150A	38.95
4X250B	42.50
4X500A	121.00
807	2.90
6075/AX9907	225.00
6076/AX9907R	275.00
6079/AX9908	60.00
6155/AX4-125A	27.50
6156/AX4-250A	37.50
6979	42.50

TWIN TETRODES	
832A	14.26
5894/AX9903	22.00
6360	4.00
6907	22.00
6252/AX9910	22.00

Type No.	Price
THYRATRONS	
3C23	\$11.98
AX260	150.00
632B	28.00

HYDROGEN THYRATRONS	
†6268/AX9911	32.50
†6279/AX9912	45.00

INERT GAS THYRATRONS	
2D21	2.00
5727	2.90

MERCURY THYRATRONS	
FG17/1701/	
967/5557	8.50
AX105/FG105	49.50
678	47.00
5559	22.00
5560/FG95	28.00
5869/AGR9950	25.00
5870/AGR9951	100.00
6786	200.00

XENON THYRATRONS	
2050	2.55
5544	27.00
5545	29.40
5685/C6J	26.40

TRIODES	
2C39A	22.50
6Q4	3.25
6R4	2.50
HF200	35.00
HF201A/468	28.50
250TH	33.00
250TL	33.00
HF300	35.00
450TH	77.00
450TL	77.00
501R/5759	225.00
502/5760	210.00
502R/5761	235.00
504R	245.00
508/6246	500.00
750TL	137.50
805	15.90
810	19.50
811A	5.65
812A	5.65
833A	49.00
834	14.50
838	16.00
845	15.95
849	145.00
849A	145.00

Type No.	Price
TRIODES (cont'd)	
880	\$545.00
889A	210.00
889RA	330.00
891	260.00
891R	410.00
892	255.00
892R	405.00
ZB3200	350.00
5604	570.00
5619	410.00
5658	545.00
5666	250.00
5667	330.00
5736	160.00
5771	540.00
5866/AX9900	20.00
5867/AX9901	30.00
5868/AX9902	50.00
5923/AX9904	150.00
5924/AX9904R	210.00
5924A	240.00
6077/AX9906	1675.00
6078	1900.00
6333	245.00
6445	390.00
6446	290.00
6447	430.00
6617	360.00
6618	495.00
6756	388.00
6757	535.00
6758	173.00
6759	206.00
6800	350.00
6960	150.00
6961	210.00

GLOW DISCHARGE TRIODE Miniature	
5823	2.50

HI-FI TWIN TRIODES	
ECC81/12AT7	2.85
ECC82/12AU7	2.30
ECC83/12AX7	2.30

TWIN TRIODES	
ECC85/6AQ8	2.60
#E88CC/6922	4.75
#E92CC	1.75
#5920	2.00
#6085	3.75

TRIGGER TUBE	
Z804U	4.30

† The Amperex types 6268/AX-9911 and 6279/AX-9912 are improved versions but completely interchangeable in every respect with the standard types 4C35 and 5C22 respectively. They have a minimum guaranteed life of 1000 hours due to the self-contained, self-regulating source of hydrogen.

** Price on request.

‡ 10,000 hour life tubes.

Prices subject to change without notice.

ask **Amperex**



about electronic tubes and semiconductors for every industrial and communications application.

RADIATOR CREDIT FOR FORCED AIR-COOLED TUBES	
TUBE TYPE	USERS ALLOWANCE
889RA	\$20.00
891R, 892R	20.00
5604	75.00
5667	20.00
6445	30.00
6447	30.00
6757	75.00

When ordering or seeking information
please mention Electronics Buyers' Guide.

MAGNETIC RESEARCH CORP.



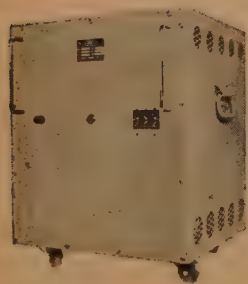
INDUSTRIAL

HIGH POWER MAGNETIC SERVO AMPLIFIERS FOR AUTOMATION

MB-1000-60 (1000 watt)

Provides 1000 watt continuous output to reference phase and 1000 watt phase-reversible output to control phase. Designed for $\frac{3}{4}$ h.p., 2 phase, 60 cycle servo motor. Ultra-fast response of less than 30 ms approaches theoretical limit. Incorporates a Scott connected transformer for change of 3-phase power into 2-phase output. Eliminates slow acting, bulky type rotating equipment or hydraulics. Completely static circuitry insures maintenance-free unattended operation.

Amplifiers can also be supplied for polarity reversing D.C. output for D.C. servo motors.



MB 1000-60



MB 200-60

MB-200-60 (200 watt)

Provides both reference-phase and control-phase power for a $\frac{1}{6}$ or $\frac{1}{8}$ h.p. industrial servo motor. Features and operation are similar to those given for the MB-1000-60 above.

STABLVOLT® DC POWER SUPPLIES with Dual Magnetic Regulation

A complete line of precision power supplies for laboratory, industrial and original equipment applications. Dual Magnetic principle provides for independent regulation of line and load changes. Exclusive flux oscillator achieves superior static and dynamic line transient regulation. No tubes, no moving parts. Short circuit-proof, maintenance-free. Ideal for unattended locations.



MR-532-15



MR-15-1

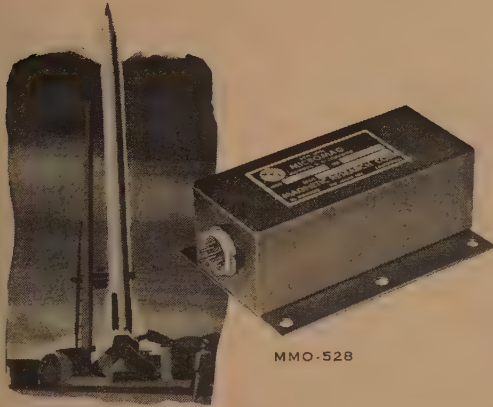
FOR YOUR SPECIAL DEVELOPMENT NEEDS

MRC offers a complete service in creative engineering, design, development and production.

Whatever your field of application—automation, computer, communication, electronic, instrumentation, aviation or guided missile—you'll find that MRC men have the highly specialized magnetronic experience and skill to do a fast, successful job. If you have a special problem involving magnetronic components, write or call MRC. Prompt response, no obligation.

*REG. TRADE MARK

AN OUTSTANDING LINE OF ALL-MAGNETIC COMPONENTS, SYSTEMS AND MAGNETICALLY REGULATED POWER SUPPLIES

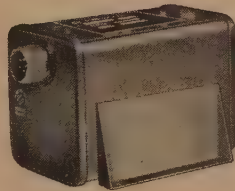


MMO-528

NEW MICROMAG* MMO-528 LOW-LEVEL MAGNETIC DC AMPLIFIER
Powered from 28 volt aircraft or missile systems—draws 20 milliamperes
For amplification of signals from thermocouples, strain gages, and similar low level transducers used in telemetering systems. DC voltage gain of 500 achieves 5 VDC output from a 10 millivolt DC input signal. Input electrically isolated from output. Designed for use in missile and aircraft telemetering systems, the amplifier has virtually no zero drift, and is temperature compensated to provide excellent gain stability. Operates directly from the aircraft 28 VDC supply. Draws 20 milliamps. No tubes are used, no warm-up time necessary. Potted and hermetically sealed to insure reliable operation. Designed to meet MIL-E-5272-A specs.
Write for complete technical data

AIRCRAFT AND MISSILE

**PRECISION MISSILE
AIRCRAFT INSTRUMENT
POWER SOURCE MRP-5-15**
DC transient-free output
A magnetic regulating system
regulates line voltage transients from
output, regulates DC to 0.1%
accuracy. Does not distort line volt-
age wave form. Trimpot having 5
volt resolution provides 0.5
output adjustment. Mounts
in any position. Rugged, com-
pact, short circuit-proof. Output
current 0-1 amp. Hermetically
sealed; all components cast in
mold-setting plastic. Meets MIL-
E-5272-A specs.



MRP-5-15

**400 CYCLE A.C. LINE VOLTAGE
REGULATOR MXP 3000**
*For laboratory and ground
support equipment*

Designed for laboratory and ground support equipment requiring constant regulation of 400 CPS voltage. Input 100-130 VAC, 380-420 CPS. Output adjustable from 110-120, regulated to $\pm \frac{1}{2}$ volt at 400 CPS, under any combined conditions of line voltage change from 100-130 VAC, and load changes from 0-25 amperes. Distortion 5% maximum. Static magnetic circuitry used throughout. Can be connected for three phase circuitry. Other ratings available for ground and airborne applications.



MXP 3000

**INSTRUMENT MAGNETIC SERVO
AMPLIFIER SERIES**
*for aircraft and missile
servo systems*
Precisely engineered Magnestat
Magnetic Servo Amplifiers are
available from stock, from the
smallest model rated at 3 watts, and
up to a frequency response of 0-30
S, to the high-power 40-watt
model, frequency response 0-10
S. These units have sinusoidal
reversing output, with transis-
tor or tube control... a.c. or d.c.
output. Temperature range of -55°C
to $+100^{\circ}\text{C}$. Currently being applied
in many major aircraft and missile
servo systems.

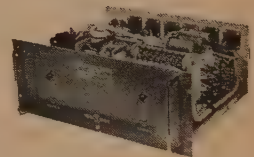


MA-6-400

**COMPLETE MAGNETIC
SERVO SYSTEMS**
*for military and industrial
applications*

Accurate, reliable systems for remote indication, measurement, recording and control in airborne and ground equipment. Developed to meet your specialized needs. Use of MRC magnetic components throughout makes your system really rugged. Fast response, strong output signal, compact packaging.

*Write for further information,
indicating your special needs*



MAGNETIC SERVO SYSTEM

Write for complete technical data



MAGNETIC RESEARCH CORP.

3160 West El Segundo Boulevard • Hawthorne, California

SIE SOUTHWESTERN INDUSTRIA ELECTRONICS CO.

2831 Post Oak Rd. P. O. Box 13058 Houston 19, Texas Phone: MO 7-6611



THE MODEL R-1 VOLTMETER is intended for precise voltage measurements in circuit design work. It offers accuracy, reliability, and convenience. In addition to its wide range AC and DC scales, it includes a precision ohmmeter, a D-C pre-amplifier for driving oscilloscopes and recording devices, a built-in standard cell for instant calibration, and provision for expanding the DC voltage scales.

SPECIFICATIONS:

Range: 1 mv. to 1000 volts, full scale AC and DC

Frequency response: 0 to 100 kc

Accuracy: DC, 1½%. AC, 3%

Input impedance: 10 megohms, 20 mmf.

Price: Standard model, \$620.00

Rack-mounted, \$700.00



THE M-2 OSCILLATOR, the standard of the geophysical industry, is an extremely versatile instrument. It combines many desirable features—wide range, accurate calibration, low distortion, high output, low drift, excellent dynamic stability, and constant output throughout the range—in a compact, rugged instrument of reasonable price. For geophysical, audio, servo, vibration, medical, and computer work, the M-2 is unexcelled.

SPECIFICATIONS:

Frequency range: 1-120,000 cps.

Distortion: less than .2% in audio range

Calibration accuracy: 1½% + .1 cps.

Output: 20 volts at 20 ma.

Amplitude stability: ± .5 db.

Price: \$425.00



THE MB-1 OSCILLATOR is powered by self-contained batteries, providing signals completely free of power line transients and 60 cps ripple. It provides low-distortion sine wave signals and covers a wide range of frequencies for geophysical, medical, and audio range with good dynamic and amplitude stability characteristics. The addition of the optional physical Microvolter (shown installed below) provides signals of accurately calibrated amplitudes at low levels.

SPECIFICATIONS:

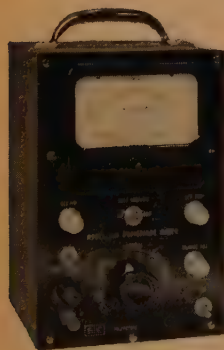
Frequency range: 2-20,000 cps

Distortion: less than .5% in audio range

Calibration accuracy: 2% + .1 cps

Output: 5 volts at 5 ma.

Price: \$215.00 (Microvolter \$80.00 extra)



THE MODEL C-6 RESISTANCE METER features a quick-charge go, no-go capacitor leakage checker. Operating from a 110-volt 60 cps power source, it measures resistances at 1½, 50 or 500 volts, enabling it to meet MIL specs on insulation tests, measure the leakage of 200 WVDC capacitors, and check continuity. It is accurate, stable, and covers the widest range of any direct-reading ohmmeter.

SPECIFICATIONS:

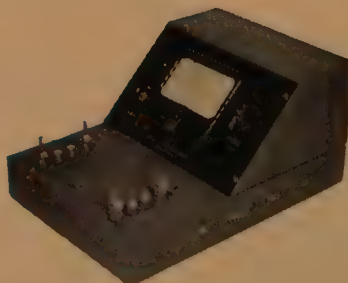
Range: 0 to 10,000,000 megohms

Test voltages: 1½, 50, and 500 volts

Accuracy: 3% of scale below 1,000,000 megohms

5% of scale above 1,000,000 megohms

Price: \$200.00



THE MODEL E-2 COMPARISON BRIDGE indicates percentage differences between resistors, capacitors, and reactors at 60-cycle frequency. It is useful for rapid acceptance and production-line tests and can be used in conjunction with decade boxes. SIE Comparison Bridges with other test frequencies and voltages are also available.

SPECIFICATIONS:

Full scale ranges: 1, 2.5, 5, 10, & 25%

Accuracy: ± .1% on the 1% range

Test limits for

Resistors: 1 ohm to 5 megohms

Capacitors: 500 mmfd. to 2000 mfd.

Inductors: 3 mh. to 10,000 henries

Price: \$185.00



THE MODEL B DIRECT-COUPLED POWER AMPLIFIER is capable of producing up to 6 watts output. It may be used to amplify the output of the D-1 amplifier, low frequency oscillators, or various transducers and will drive recorders, shaking tables, loudspeakers, electric motors, Helmholtz coils, and other transducers. It finds application also as an ultra-low-frequency transformer.

SPECIFICATIONS:

Voltage gain: 2.5

Power gain: 30,000

Output: 25 volts RMS, 250 ma.

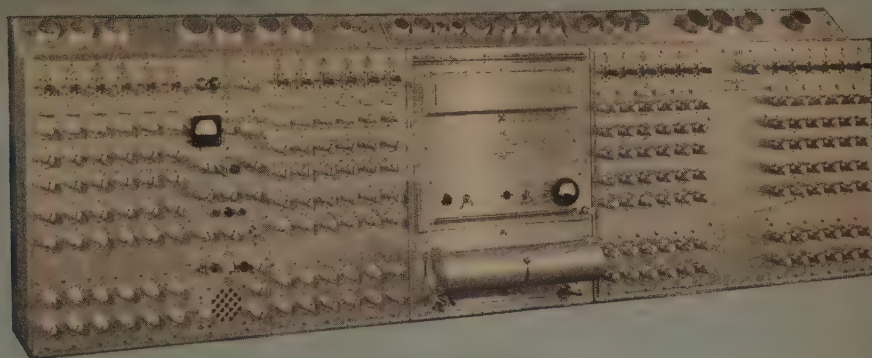
Frequency response: 0-20,000 cps ±

Input impedance: 500,000 ohms

Price: \$575.00 (less cabinet)



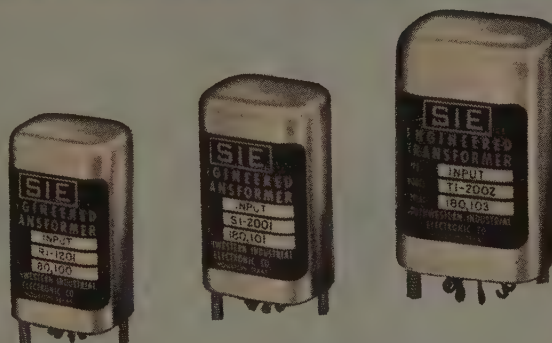
GEOPHYSICAL INSTRUMENTS



SIE is the world's largest manufacturer of electronic seismograph instruments, having supplied more than 420 complete systems to organizations operating throughout the world. The complete SIE line of geophysical equipment includes geophones, galvanometers, recording oscillographs, magnetic tape recorders, matched sets of amplifiers, control and checking units, blasters, power supplies, and special vehicle bodies.

Shown above is an SIE G-22A high production seismograph system. The RO-22A-10 Oscillograph records fifty channels on ten-inch paper, and all of the components in the GA-22A amplifiers are hermetically sealed for low noise and long life.

TRANSFORMERS AND INDUCTORS



SIE Precision Engineered Transformers and Reactors are manufactured by the Hermetic Seal Transformer Division of Southwestern Industrial Electronics Company. Standard designs for low frequency applications are small, hermetically-sealed units and offer uniform response characteristics from 5 to 1000 cps. Special precautions are taken to insure identical phase characteristics . . . a feature that is very important in the manufacture of matched sets of amplifiers.

The Hermetic Seal Transformer Division also produces a wide variety of standard and custom-designed transformers and chokes. Some of these special components are: low-level, low-frequency, high-inductance coils, hum-bucking construction types; wound components with single, double, or triple Mu-metal shielding; and high-temperature insulation and toroidal windings on a wide variety of core materials.

SIE transformers include a complete line of products built to the requirements of specification MIL-T-27A. Other wound components from SIE include recording heads and magnetic amplifiers.

MODEL MO MULTI-CHANNEL OSCILLOGRAPH
permits visual observation of
multiple channels of dynamic data,
displayed on a 21" single-
mode ray tube with a long-
life P-7 phosphor. A raster scanning
circuit provides useful frequency re-
sponse to 2000 cps, while a special
circuit accelerates the sweep for
detailed examination of certain signals.
Auxiliary Model EP Event Pre-selector
provides .1 and .01 second timing lines,
and calibrated sweep delays.

FEATURES:
Speeds: 3-300 ips.
Sensitivity: 2 volts/inch
Model MO, \$6000.00
Model EP, \$1500.00

MAGNETIC TAPE RECORDERS . . . SIE manufactures
a line of drum-type magnetic tape
recorders, with as many as fifty-six chan-
nels. Standard, portable, mobile, and laboratory
models. Among the special features
are servo-controlled individually
adjustable recording heads, viewing screen and photo-
graphic attachments, and tape storage
units for long-time recording.

**SPECIFICATIONS USING WIDE-
BAND FM (SIE SLOPE MODULATOR):**
Frequency response: 0-500 cps (down 3 db.)
Total harmonic distortion: less than 1% meas-
ured at 35 cps

Signal-to-noise ratio: better than 54 db.
Timing accuracy: .25 millisecond
Modulation: 1 volt RMS for 100% modula-
tion

Delivery will be quoted on receipt
of specific inquiry.



toroidal coil winding ROBOTIZED by UNIVERSAL

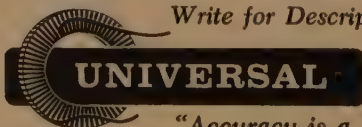
7 MACHINES FOR AUTOMATIC WIRE AND TAPE WINDING

- 10 times faster than by hand
- Tighter, neater, more accurate
- Lower unit cost . . . pays for itself
- #40 to #3 wire . . . for all size coils
- Ideal for Inductors, Filters, Rheostats, Transformers, Saturable Reactors, Potentiometers, Magnetic Amplifiers, etc.

CUSTOM WINDING

Submit your specifications for custom winding right in our plant. Economical, dependable service! Specialized in winding of heavy teflon wire. Engineering and technical service available.

Write for Descriptive Literature



"Accuracy is a Universal Word"

UNIVERSAL MANUFACTURING COMPANY, INC.
410 Hillside Avenue, Hillside, N. J.



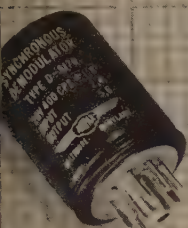
o amplifier controls current to windings of 400-CPS split-se motor, draws low stand-by er.



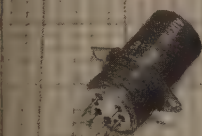
Magmeter detector produces an output current that is linearly proportional to input frequency with high accuracy.



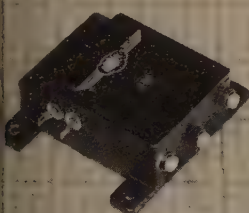
Pulsite blocking oscillator transformers are hermetically sealed, provide pulse widths from 0.1 to 10 microseconds.



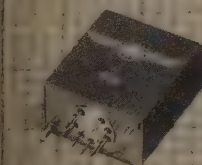
netic demodulator produces rity-reversible DC output from CPS phase-reversible input.



er-pivoted 400-CPS chopper op- s during shock and vibration up to 125 degrees Centigrade.



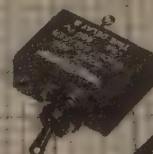
tial chopper presents an SWR w 1.4 up to 400 MC on 50-ohm switches at 100 CPS.



halves of this double-pole le-throw split-reed chopper each other in phase within 5 es.



Ferrac instrument-type 400-CPS mag- netic amplifier has exceptional stability and linearity.



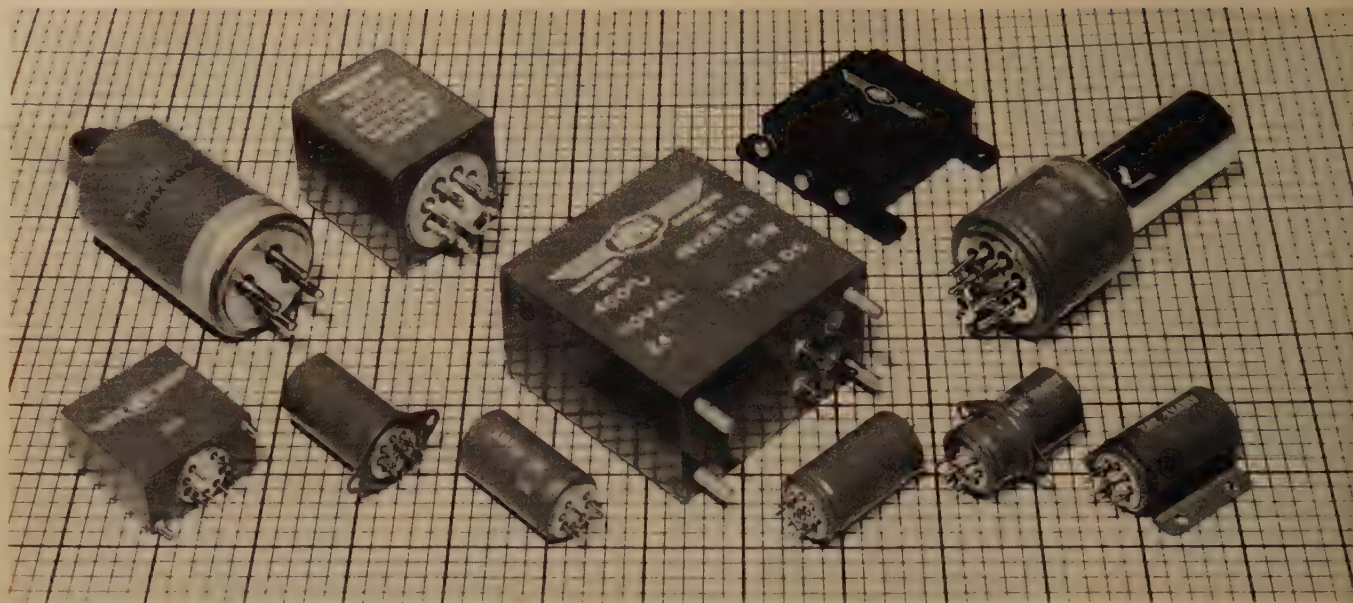
Miniature circuit breaker has magnetic time delay independent of temperature, rated currents from 50 MA to 10 amp.

AIRPAX

PRECISION ELECTRICAL COMPONENTS

Here are some of the newer products developed at Airpax. All are manufactured to the traditionally high precision that has gained Airpax its reputation for quality. On the next two pages you will find tabular data about these and other Airpax products.





These accurately made components represent products available to you that meet rigid industrial or military requirements.

Choppers—A variety of Airpax choppers enables you to select the appropriate type for each application. They are manufactured on precision machines to assure you of uniformly high quality. These choppers are used in instruments and automatic control. Contacts are rated for 0 to 2 milliamperes at up to 100 volts. Drive is 6.3 RMS volts.

Typical Signal Choppers

Frequency (CPS)	7-Pin Base Type	Octal Base Type	Miniature Solder Lug Type
Standard Environment			
60	175, 176	170, 586	178, 179, 800*
400	300, 400	520, 580	302 thru 304, 600*
High Temperature			
400	150, 310, 320	100	311 thru 314
High Vibration			
400	350		351 thru 354

*Double-pole double-throw, split reed

400-CPS Chopper Drivers—Chopper drivers enable you to use 400-CPS choppers even if 400-CPS drive power is not otherwise available. There are two types: Series 202 is for use in 60-CPS powered equipment with conventional heater and plate voltages. Series 220 is for use in battery powered equipment.

Vibrators—Airpax pioneered high-frequency power vibrators because of reduced size and weight of associated transformers and chokes.

Type 500 vibrator is a 400-CPS interrupter unit for use with moderate continuous or heavy intermittent loads. It is hermetically sealed, operates in any position. This vibrator and variations are used in airborne transceivers, guidance equipments, and portable sets.

Type 505 is a center-pivoted vibrator rated for 28 DC volts input and output at 250 CPS. It is designed to withstand vibrations of 10 G from 10 to 1,000 CPS; time efficiency is 46%.

Inverters—Using 400-CPS vibrators, Airpax custom designs and manufactures compact low-power inverters. By way of example, Type 512 is hermetically sealed, weighs 14 ounces, occupies 7.5 cubic inches, withstands accelerations of more than 50 G, and has an efficiency of 75%. Its output is essentially a square wave, 15 watts at 110 RMS volts, 400 CPS. Input is 6, 12 or 24 DC volts.

Pulse Transformers—For preferred blocking oscillator circuits, use Airpax Pulsite transformers. These compact, hermetically sealed units are available as a kit covering many requirements of pulse circuits.

Characteristics of Pulsite Transformers

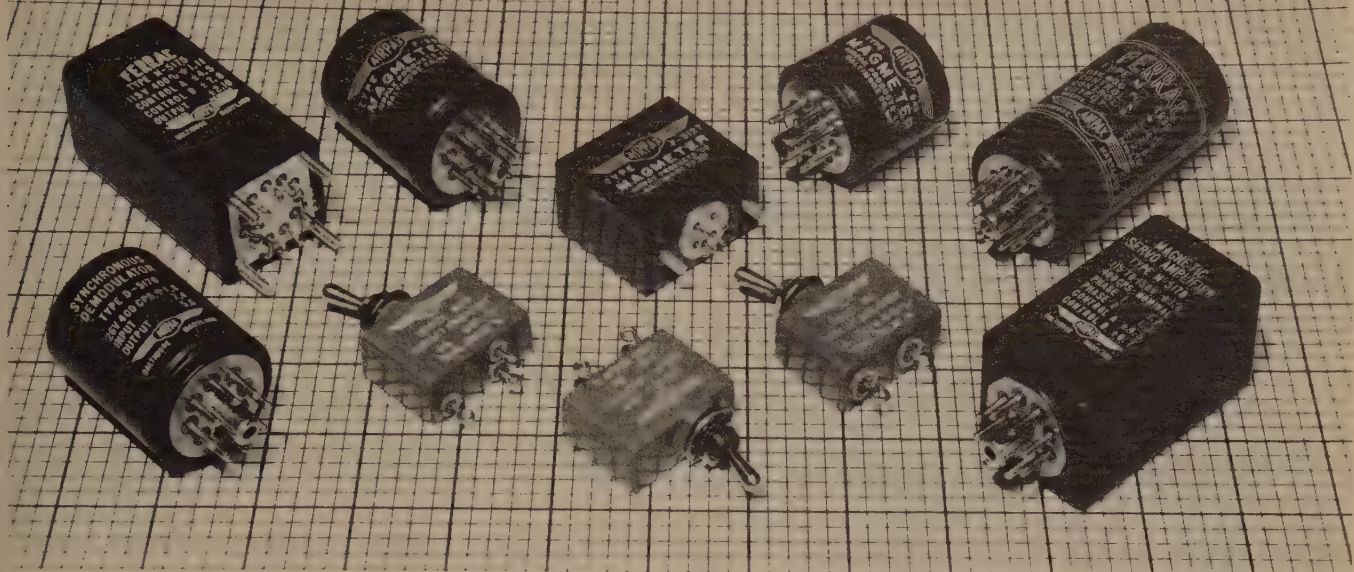
Pulse Width (usec)	Loc (mh)	Li (uh)	Cd (uuf)	Type
0.1	0.08	6	7	PT-1081
0.2	0.13	14	7	PT-1082
0.3	0.30	25	8	PT-1083
0.5	0.80	30	8	PT-1084
1.0	2.4	35	9	PT-1085
2.0	7.8	125	10	PT-1086
5.0	28	400	10	PT-1087
10.0	153	1,000	12	PT-1088

Custom Transformers—Airpax designs and manufactures custom transformers. The largest Fosterite facility in the country is at Airpax; units 3 x 3 x 4 feet can be baked and vacuum impregnated, or large batches of small units can be processed quickly. In addition to vacuum impregnated and molded units for airborne equipment, Airpax manufactures hermetically sealed MIL-T-27A units. Airpax has supplied transformers in quantity for operation in ambients to 175 C.

Sheet Metal Facilities—A complete machine and sheet metal shop complements the transformer production. The shop has sufficient capacity to fabricate custom metal parts, such as chassis and cases.



BALTIMORE 20, MD. • CAMBRIDGE, MD.
FORT LAUDERDALE, FLA.



Thorough testing and inspection assure you that these Airpax components meet critical requirements for control and guidance.

Magnetic Amplifiers—Ferrac magnetic amplifiers are highly stable and linear DC amplifiers. You can use them in analog computer portions of guidance and control equipment. Several types are available to meet usual applications. Each amplifier has two input windings; output is electrically isolated from input and power supply. At stand-by, amplifier draws about 1.5 watts; with full signal, 2.5 watts at 115 RMS volts, 400 CPS.

Instrument Magnetic Amplifiers

Application	Plug-In Type	Bolt-Down Type
General Purpose	M-943	M-5174
Integrator	M-1039	M-5175
Thermocouple	M-1040	M-5176
High Gain	M-1057	M-5177

Synchronous Demodulators—So that 400-CPS synchros can be used with DC control circuits, Airpax developed highly accurate ring rectifiers.

Type D-5170 has a highly accurate null for use in zero-seeking equipments. A null accuracy (exclusive of the synchro) of 9 minutes can be obtained with it.

Type D-5171 has a wider linear range for proportional control equipments. It presents about 20,000 ohms to the control transformer.

Servo Amplifiers—Airpax magnetic power amplifiers control current to both phases of 400-CPS instrument servo motors. As a result, they draw little stand-by power. This characteristic results in up to 60% saving in stand-by power, compared with some other servo amplifiers. Standard units deliver 3.5, 6, or 10 watts per phase.

Typical Ratings, Type M-5178

Input—Two identical control windings of about 125 DC ohms each
Sensitivity—7.5 DC milliamperes into either control winding produces 6 watts output to each phase

Power—115 to 150 RMS volts at 400 CPS, approximately 21 watts at maximum output, only 3 watts during stand-by

Connections—Octal plug-in base, hermetically sealed

Dimensions (Max.)—1½" square base, 3" seated height

Weight—Approximately 14 ounces

Frequency Detectors—Magmeter frequency detectors convert AC signals to DC outputs. The output is linearly

proportional to input frequency. These detectors are relatively insensitive to changes in signal amplitude and wave shape. They are used in telemetering, tachometers, and for pulse-rate measurement. Standard Magmeter detectors require about 1 watt of signal input. They can be driven directly from 120-volt power lines, from vacuum tubes or transistors. Plug-in units fit octal sockets; bolt-down units have solder lugs.

Magmeter Frequency Detector

Frequency (CPS)	Line or Tube Drive Plug-In	Bolt-Down	Transistor Drive Plug-In
0-50	F-945	F-5121	F-5156
0-100	F-979	F-5122	F-5157
0-200	(F-979)	F-5123	F-5158
375-425	F-992	F-5133	
0-500	F-5146	F-5124	F-5159
0-1000	F-980	F-5125	F-5160
0-2000	F-981	F-5126	F-5161
0-5000	F-947	F-5127	F-5162

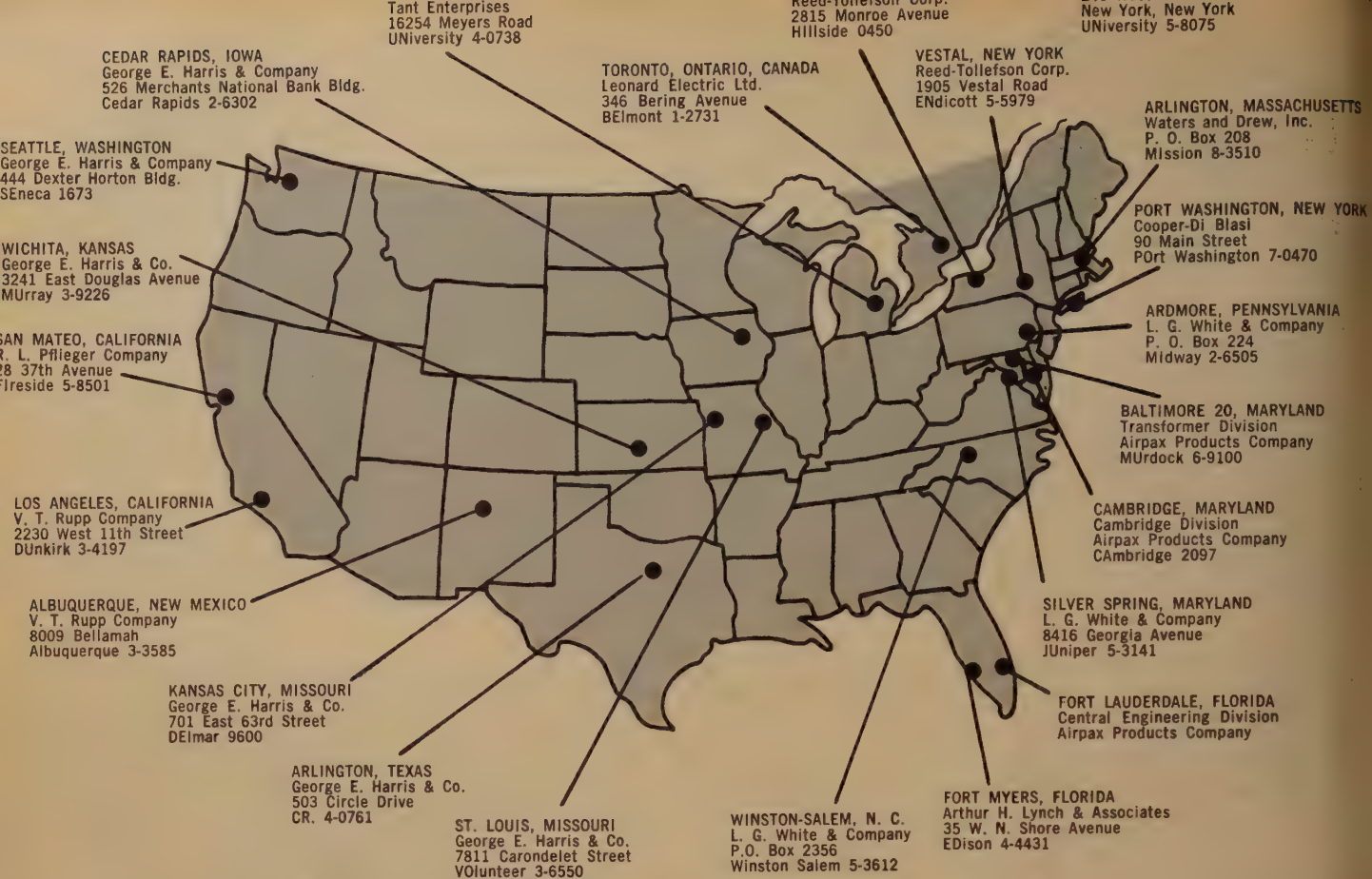
Circuit Breakers—Electronic circuits can be protected by Airpax miniature magnetic time delay circuit breakers. Trip level is unaffected by temperature. Units are rated up to 50 DC volts or up to 120 RMS volts; the latter either for 60 or for 400 CPS. Trip sensitivities are as low as 50 milliamperes; current ratings are available up to 10 amperes. There are two standard time delays: Rapid response A for protecting conventional electronic equipments, and slow response B for equipments that draw substantial starting surges.

Miniature Circuit Breakers

Rating	Series Type	Shunt Type	Relay Type
50 DC volts	401-	402-	403-
120 RMS volts at 60 CPS	410-	411-	412-
120 RMS volts at 400 CPS	420-	421-	422-



**BALTIMORE 20, MD. • CAMBRIDGE, MD.
FORT LAUDERDALE, FLA.**



TECHNICAL LITERATURE

*The following Airpax publications are available to you for the asking
at the sales offices shown above.*

Contact Modulator (chopper)—Bulletin 103

definition of characteristics—methods of measurement—typical applications—theoretical considerations

Magmeter Audio Frequency Detector—Bulletin 345

principle of operation—performance—applications to measuring pulse rate and rpm

Ferrac Ferromagnetic Computing Amplifier—Bulletin 221

theory of operation—performance characteristics—circuit applications—uses of Magmeter detectors

A New 400 CPS Vibrator—Data on Type 500

ratings—design of vibrator power supplies

Miniature 400-CPS Chopper—Data on Series 300 Choppers

discussion of ratings—contact capacity—life and dwell time—phase angle and noise

High Vibration Chopper, Series 350—Data 111

effect of vibration—contact action—effect of temperature

Chopper Driver Plug-In Oscillator—Data 112

advantages of 400-CPS chopper—performance—power requirements

Magmeter Detector with Expanded Frequency Scale—Data 113

operating principle—input and output circuits

Series 310 High Temperature Chopper—Data 114

characteristics compared to related types

Magmeter Detector for Transistor Drive—Data 115

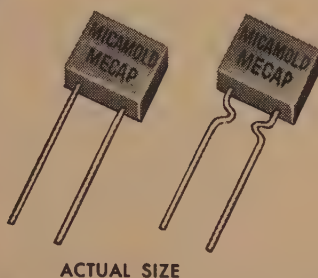
design of transistor driver—choice of transistors—over-all performance

Pulsite Transformers for Blocking Oscillators—Data 116

properties of pulse transformers—measurement of transformer parameters—use in blocking oscillator



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OBSOLETE

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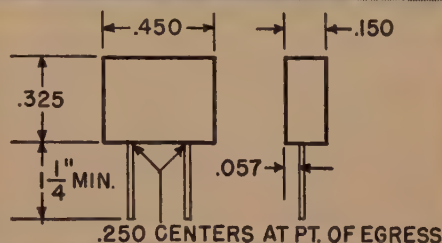
Mecaps[®]

**the only MOLDED
radial lead mica
capacitors**

Now, only from MICAMOLD...Mecaps—radial lead Molded, not encased or dipped, mica capacitors, for use in automation, computers, delay lines, printed circuitry, etc.

- Precision size, symmetrical...**CONSTANT BODY DIMENSIONS.**
- Can be stacked...available taped for mechanical insertion.
- Meets and **EXCEEDS** MIL C-5A Specifications. Available in "B", "C", "D", "E", and "F" characteristics. Operating temperature from -55°C to 125°C . Standard temperature range: -40°C to 85°C .
- This consistently high quality molded mica capacitor at no additional cost over the obsolete dipped types.
- Radial leads available straight or crimped.

*The Micamold catalog giving complete specifications,
available upon request from Dept. C*



Micamold pioneered the development, design and manufacture of capacitors —

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Hermetically sealed.
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All Military standard types.
Commercial line for industrial applications.
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Military standard types CM 15 through CM 70.
High temperature types for operation to 150°C ... AO, AW, AV.

**Micamold also manufactures RF Interference
Filters, Pulse Networks and Delay Lines.**



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ELECTRO-MECHANICAL COMPONENTS ENGINEERED AND

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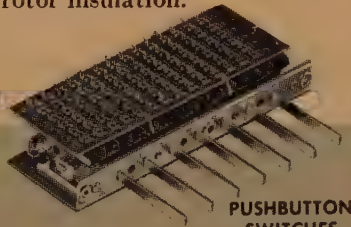
Mounts in a 1" diameter circle

NEW . . . Type A Miniature Rotary Switch

Available in three models: 45°, 36°, and 30° throw. Up to 18 contacts. Silicone glass stator insulation; KEL-F® rotor insulation.



ROTARY SWITCHES



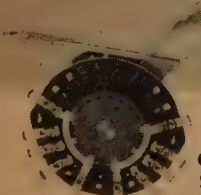
PUSHBUTTON SWITCHES



PRINTED CIRCUIT SWITCHES



ROTARY SLIDER SWITCHES



LEVER OPERATED SWITCHES



MULTIPLE SHAFT SWITCHES

The above switches represent but seven of the hundreds of basic Oak designs—already tooled for fast production. Custom variation of these designs provides a source of special switches in almost *infinite variety*. Excellence of design plus highest quality materials make Oak switches the best you can buy. Standard insulation is phenolic, steatite, and Mycalex; contacts, silver-plated spring brass or spring silver alloy.

choppers

NEW!

Oak Chopper for Missile Applications

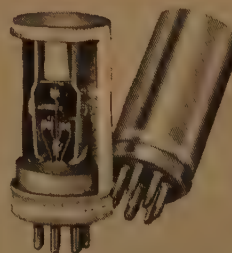
Designed for high shock, high acceleration, high vibration frequencies, and high temperature operation.

NEW Type 605 Chopper Eliminates Phase-Shift Circuit

Has 0° (or 180°) phase-lag "designed-in." Available with side or vertical flange mounts, flattened pierced pins, solder loops, or standard socket pins.

NC 600 Series of Oak Choppers

Available for frequencies from 15 to 600 cycles. Operates up to 125°C. High contact rating. Exceptional stability. Low voltage starting.



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Custom-Designed and Custom-Built

Basic Oak designs cover practically any application. The V6000 Series is a versatile, general purpose vibrator.

Type 94 is designed primarily for auto radios. Type 95 is a small, medium power shunt drive interrupter. The MV Series is designed for portable radios and similar applications. All can be supplied for military needs.

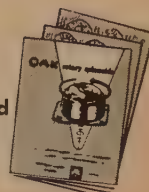
design...call on OAK engineers!

ing time. Even on seemingly simple components, Oak engineers have been able to make valuable suggestions that resulted in better performance and lower costs. Combine this thorough engineering with Oak's manufacturing skills and facilities, and you can feel assured of getting the *exact* component you need . . . and in a lot less time.

Write on company letterhead for a copy of the Oak Switch Catalog ...

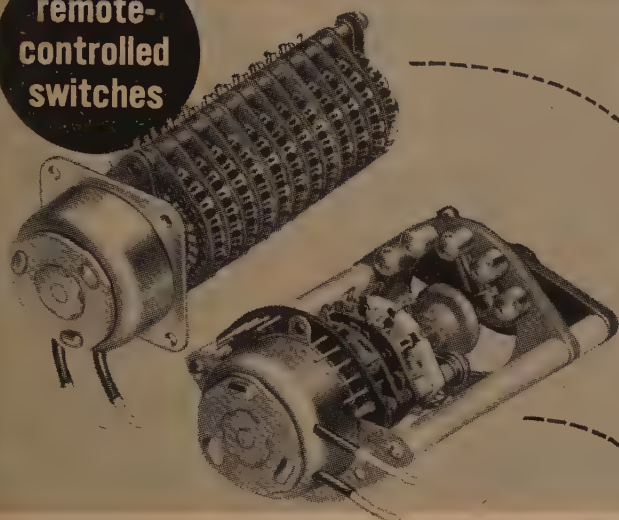


...or the Oak Rotary Solenoid Bulletin.



MANUFACTURED TO YOUR EXACT REQUIREMENTS!

remote-controlled switches



special sub-assemblies



SERVO-SELECTOR BUILT FOR RADIO CORPORATION OF AMERICA

MT273E MOUNTING BASE BUILT FOR BENDIX RADIO DIVISION

Thousands of Combinations

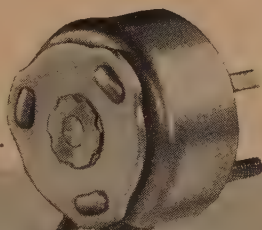
Oak remote-controlled switches are custom combinations of Oak rotary solenoids* and the many types of Oak rotary switches. They are unusually reliable, giving a positive stepping action even under conditions of shock and vibration. Ideal for mobile and military equipment.

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One Responsibility . . . One Source

Turn your prototype over to Oak engineers. They will analyze it, test it, redesign for optimum performance, and convert it into a manufacturable device. Oak's modern production facilities then build your subassembly, and run any life and environment tests which may be required.

rotary solenoids*



Supplied alone, with Switch Sections, or in Complete Subassemblies as shown above.

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Oak rotary solenoids are ideal actuators for remote control of complex circuits under the severe conditions of MIL-S-4040A and similar specifications. They are compact, rugged and extremely adaptable.

OAK

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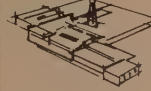


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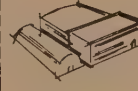
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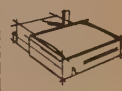
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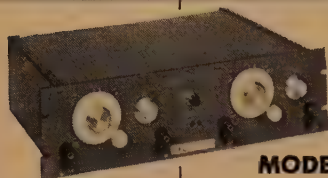
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PRECISION INSTRUMENTS

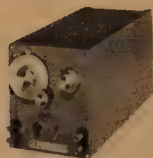
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• QUALITY • ACCURACY • RELIABILITY

VARIABLE ELECTRONIC FILTERS: SERIES 300



MODEL 302



MODEL 300

FUNCTION		High or Low Pass Band Pass or Reject	High or Low Pass
Cut-off Freq. Range		20 cps to 200 kc	20 cps to 200 kc
Attenuation Rate	Per Section	18 db/octave	18 db/octave
	Max.	36 db/octave	18 db/octave
PASS BAND		2 cps to 4 mc	2 cps to 4 mc
DIAL ACCURACY		± 3% to 20 kc ± 5% above 20 kc	± 3% to 20 kc ± 5% above 20 kc
INSERTION LOSS		0 ± 1 db	0 ± 1 db
NOISE LEVEL		60 microvolts	60 microvolts

... For elimination of unwanted signals in your data

... For studies in vibration, dynamics, telemetering, acoustic noise and speech

... Continuously variable pass band permits clean recordings of only the data you want

... As well as selection of discrete frequencies when recording or analyzing data

The Series 300 Variable Electronic Filters were developed to meet the problems of inflexibility and expense inherent in conventional multi-frequency filters. Where the fixed filter made for a specific application becomes useless for any other need, the SKL Variable Electronic Filter serves to fulfill broad and diversified laboratory requirements.

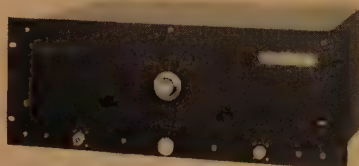
Continuous range of cutoff frequency and ability to produce band-pass and band-rejection characteristics with independent control of the upper and lower cutoff frequencies are invaluable.

WIDE-BAND CHAIN AMPLIFIERS: SERIES 200

for every application

NEW

MODEL 206



The 9 in 1 amplifier providing any combination of:

Gaussian, flat or sloping response curve

Linear, pulse or high level pulse output mode

MODEL	BANDWIDTH	GAIN	OUTPUT	IMPEDANCE	
				INPUT	OUTPUT
214B	200 cps—90 mc	30 db	125 v, pulse	180	5000
211	15 mc—110 mc	33 db	4 v, rms	50	50
202D	1 kc—210 mc	20 db	4 v, rms	200	200
212C-TV	54 mc—216 mc	20 db	3 v, peak	50 or 75	50 or 75
206	600 cps to 320 mc	18 db to 24 db	(1) 6 v, rms (2) 60 v, pulse (3) 125 v, pulse	180	200

FAST-RISE PULSE GENERATOR

THE Standard for Millimicrosecond Pulses

Model 503 is ideal for testing the transient response of wide band amplifiers and semiconductors. Higher voltage pulses are available through use of an external power supply.



Rise time: Less than 1 millimicrosecond

Amplitude: 0 to 150 volts

Repetition Rate: 50 to 120 cps

Pulse Width: .06 x 10⁻¹⁰ Sec., Minimum Determined by Length of Width Cable. Max. Width not Restricted. .05 x 10⁻⁹ Sec., Factory Supplied

Polarity: Either Positive or Negative

Load Impedance: 50 ohms

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SKL LABORATORIES, INC.
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WIDE-BAND TELEVISION DISTRIBUTION SYSTEM:
SKL manufactures complete TV distribution systems for community, apartment house and industrial use. Details upon request.

CRUCIBLE PERMANENT MAGNETS

**CRUCIBLE
PERMANENT
MAGNETS
PROVIDE
CONSISTENTLY
HIGHER
ENERGY
PRODUCT**

Most Crucible Permanent Magnets are produced to custom specifications. They're sand cast, shell molded or investment cast in any shape, tolerance and finish needed . . . in any size from a fraction of an ounce to several hundred pounds.

However, Crucible does stock, for immediate delivery, permanent magnets in the shapes and sizes most frequently needed for both pilot and full-scale production. These standard items, with their physical and magnetic properties, are listed below.

In each case the sub-grade bearing the letter "B" is the standard for that grade. Thus Alnico VB is standard Alnico V. The other sub-grades are modifications of the standard grade to produce special magnetic characteristics. For additional technical information, call your nearest Crucible representative. Crucible Steel Company of America, Henry W. Oliver Building, Pittsburgh 22, Pa.

Compositions and Properties of Crucible Permanent Magnet Alloys

ALLOY	NOMINAL CHEMICAL COMPOSITION	MAGNETIC DATA				PHYSICAL DATA			MECHANICAL DATA		
		RESIDUAL FLUX DENSITY B_r (GAUSS)	COERCIVE FORCE H_c (OERSTEDS)	MAXIMUM ENERGY PRODUCT (BH) _{max} (8.22 ERGS/CU. CM. $\times 10^{-3}$)	$B_o \uparrow$ (GAUSS)	DENSITY (LBS./CUBIC INCH)	MEAN COEFFICIENT OF TEMPERATURE EXPANSION (20°C TO 300°C) (INCHES/INCH/ $^\circ\text{C} \times 10^6$)	ELECTRICAL RESISTIVITY AT 25°C (OHM-CM./SQ. CM. $\times 10^9$)	TENSILE STRENGTH (AS USED) (LBS./SQ. INCH)	TRANSVERSE MODULUS OF RUPTURE (LBS./SQ. INCH)	HARDNESS (AS USED) (RC—ROCKWELL C)
Alnico I A	12 Al, 22.5 Ni, 5 Co, Bal. Fe	6,600	540	1.40	4,100	0.249	12.6	75	4,000	13,900	45 RC
Alnico I B	12 Al, 21 Ni, 5 Co, Bal. Fe	7,100	450	1.40	4,700	0.249	12.6	75	4,000	13,900	45 RC
Alnico I C	12 Al, 19.5 Ni, 5 Co, Bal. Fe	7,600	400	1.40	5,200	0.249	12.6	75	4,000	13,900	45 RC
Alnico II A	10 Al, 18 Ni, 12.5 Co, 6 Cu, Bal. Fe	7,000	650	1.70	4,300	0.256	12.4	65	3,000	7,200	45 RC
Alnico II B	10 Al, 19 Ni, 12.5 Co, 3 Cu, Bal. Fe	7,500	580	1.70	4,700	0.256	12.4	65	3,000	7,200	45 RC
Alnico II C	10 Al, 16 Ni, 12.5 Co, 6 Cu, Bal. Fe	8,000	425	1.60	5,500	0.256	12.4	65	3,000	7,200	45 RC
*Alnico II H	10 Al, 19 Ni, 14.5 Co, 3 Cu, Bal. Fe	8,400	600	2.10	5,400	0.256	12.4	65	3,000	7,200	45 RC
Alnico III A	12 Al, 26 Ni, 3 Cu, Bal. Fe	6,400	560	1.35	3,900	0.249	13.0	63	12,000	22,500	45 RC
Alnico III B	12 Al, 25 Ni, 3 Cu, Bal. Fe	6,800	490	1.35	4,300	0.249	13.0	63	12,000	22,500	45 RC
Alnico III C	12 Al, 24 Ni, 3 Cu, Bal. Fe	7,500	400	1.35	5,000	0.249	13.0	63	12,000	22,500	45 RC
Alnico IV A	12 Al, 28 Ni, 5 Co, Bal. Fe	5,500	730	1.35	3,200	0.253	13.1	75	9,000	24,000	45 RC
Alnico IV B	12 Al, 25 Ni, 5 Co, 2 Cu, Bal. Fe	6,000	660	1.45	3,600	0.253	13.1	75	9,000	24,000	45 RC
*Alnico IV H	12 Al, 26 Ni, 9 Co, 2 Cu, Bal. Fe	6,000	790	1.65	3,500	0.253	13.1	75	9,000	24,000	45 RC
*Alnico V A	8 Al, 15 Ni, 24 Co, 3 Cu, Bal. Fe	12,000	720	5.00	9,100	0.264	11.3	47	5,450	10,500	50 RC
*Alnico V AB	8 Al, 14.5 Ni, 24 Co, 3 Cu, Bal. Fe	12,500	685	5.50	10,000	0.264	11.3	47	5,450	10,500	50 RC
*Alnico V B	8 Al, 14 Ni, 24 Co, 3 Cu, Bal. Fe	12,700	650	5.50	10,400	0.264	11.3	47	5,450	10,500	50 RC
*Alnico V C	8 Al, 13 Ni, 24 Co, 3 Cu, Bal. Fe	13,200	580	5.50	11,200	0.264	11.3	47	5,450	10,500	50 RC
*Alnico V E	8 Al, 15 Ni, 24 Co, 3 Cu, 0.5 Ti, Bal. Fe	11,000	700	4.50	8,400	0.264	11.3	47	5,450	10,500	50 RC
†Alnico V BDG	8 Al, 14 Ni, 24 Co, 3 Cu, Bal. Fe	13,300	725	6.50	10,500	0.264	11.3	47	5,450	10,500	50 RC
*Alnico VI A	8 Al, 17 Ni, 23 Co, 3 Cu, 4 Ti, Bal. Fe	7,500	975	2.75	4,600	0.268	11.4	50	23,000	45,000	56 RC
*Alnico VI AB	8 Al, 16 Ni, 23 Co, 3 Cu, 2 Ti, Bal. Fe	8,400	860	3.00	5,400	0.268	11.4	50	23,000	45,000	56 RC
*Alnico VI B	8 Al, 15 Ni, 23 Co, 3 Cu, 1 Ti, Bal. Fe	10,500	760	3.65	7,000	0.268	11.4	50	23,000	45,000	56 RC
Ferrimag I	BaO • 6Fe ₂ O ₃	2,000	1,500	0.80	1,030	0.170		>100 $\times 10^{13}$			

*Directional Magnetic Properties.

†Tentative magnetic properties.

‡ B_o = flux density at point of maximum energy product.

§Intrinsic coercive force, H_{ci} .

CRUCIBLE

first name in special purpose steels

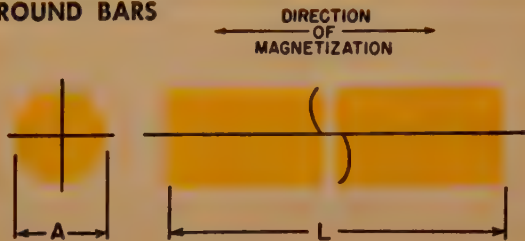
Crucible Steel Company of America

CRUCIBLE PERMANENT MAGNETS AVAILABLE

BAR MAGNETS

Dimensions shown are for Crucible bar magnets as cast — not ground. Order bar magnets in length desired. Cutting Tolerance $\pm .015$. Specify with order whether bars are to be supplied magnetized or not. Available only in Alnico VB.

ROUND BARS



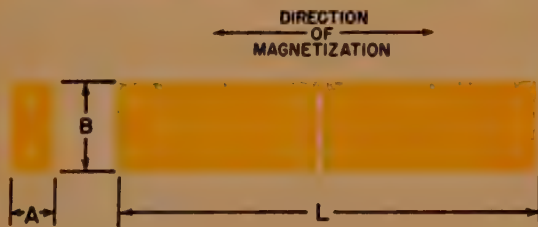
Catalog No.	Dim. A, in.	Max. Dim. L, in.	Est. Wgt. Lbs.
MA 1000	$\frac{1}{8}$	4	.013
MA 1001	$\frac{3}{16}$	5	.037
MA 1002	$\frac{1}{4}$	6	.078
MA 1003	$\frac{3}{8}$	6	.176
MA 1004	$\frac{1}{2}$	6	.312
MA 1005	$\frac{5}{8}$	6	.488
MA 1006	$\frac{3}{4}$	6	.702
MA 1007	1	6	1.25
MA 1008	$1\frac{1}{4}$	6	2.81
MA 1009	2	6	5.00

SQUARE BARS



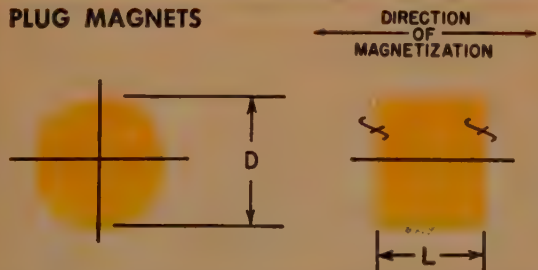
Catalog No.	Dim. A, in.	Max. Dim. L, in.	Est. Wgt. Lbs.
MA 1010	$\frac{3}{16}$	4	.037
MA 1011	$\frac{1}{4}$	4	.066
MA 1012	$\frac{3}{8}$	6	.224
MA 1013	$\frac{1}{2}$	6	.398
MA 1014	$\frac{5}{8}$	6	.621
MA 1015	$\frac{3}{4}$	6	.894
MA 1016	$\frac{7}{8}$	6	1.22
MA 1017	1	6	1.59
MA 1018	$1\frac{1}{2}$	6	3.58
MA 1019	2	6	6.36

RECTANGULAR BARS



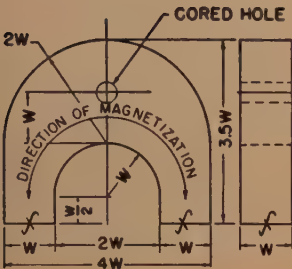
Catalog No.	Dim. A, in.	Dim. B, in.	Max. Dim. L, in.	Est. Wgt. Lbs.
MA 1042	$\frac{1}{4}$	$\frac{3}{8}$	6	.149
MA 1043	$\frac{1}{4}$	$\frac{1}{2}$	6	.199
MA 1044	$\frac{1}{4}$	$\frac{3}{4}$	6	.298
MA 1045	$\frac{1}{4}$	1	6	.398
MA 1046	$\frac{1}{2}$	$\frac{3}{4}$	6	.596
MA 1047	$\frac{1}{2}$	1	6	.795
MA 1048	$\frac{1}{2}$	$1\frac{1}{2}$	6	1.19
MA 1049	$\frac{3}{4}$	1	6	1.19
MA 1050	$\frac{3}{4}$	$1\frac{1}{2}$	6	1.80
MA 1051	$\frac{3}{4}$	2	6	2.39
MA 1052	1	$1\frac{1}{2}$	6	2.39
MA 1053	1	2	6	3.18
MA 1054	1	$2\frac{1}{2}$	6	3.98
MA 1055	$1\frac{1}{2}$	2	6	4.77

PLUG MAGNETS



Catalog No.	Dia. D, in.	Dim. L, in.	Est. Wgt. Lbs.	Nom. Wt. Oz.
LG 1	.689	.430	.042	.68
LG 2	.759	.522	.062	1.00
LG 3	.840	.626	.092	1.47
LG 4	.908	.535	.092	1.47
LG 5	.998	.648	.134	2.15
LG 6	1.114	.765	.198	3.16
LG 7	1.224	.633	.198	3.16
LG 8	1.365	.748	.290	4.64
LG 9	1.523	.880	.425	6.80
LG 9A	1.450	.970	.425	6.80
MA 93	1.672	1.080	.628	10.0

FOR IMMEDIATE DELIVERY FROM STOCK

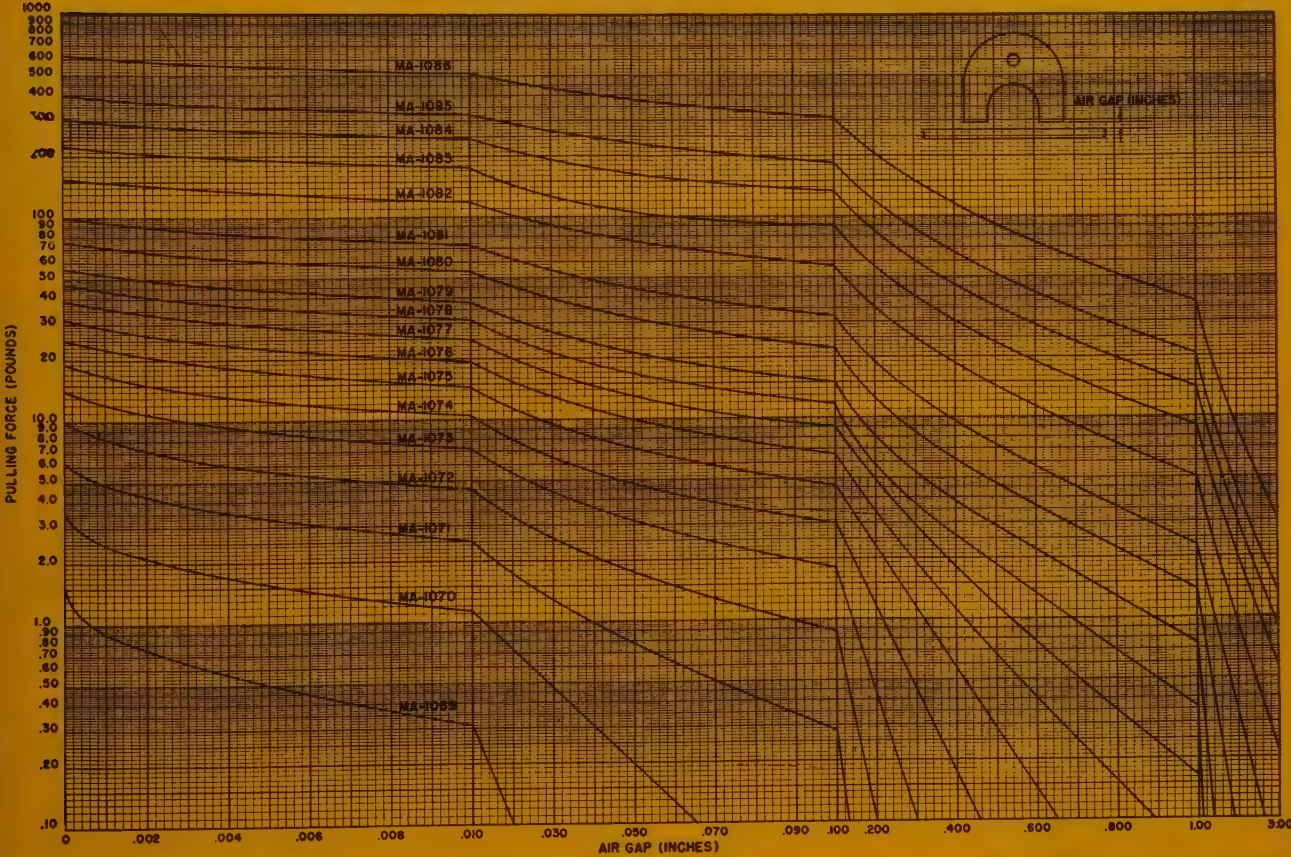


HORSESHOE MAGNETS

All Crucible horseshoe magnets are ground on pole faces and painted red, and supplied magnetized with keepers. Series MA-1069 through MA-1086 are available from stock only in Alnico VB.

Catalog No.	W, in.	Hole Diameter, in.	Est. Wght. Lbs.
MA 1069	1/8	0	.005
MA 1070	3/16	0	.017
MA 1071	1/4	0	.040
MA 1072	5/16	1/8	.078
MA 1073	3/8	3/16	.134
MA 1074	7/16	1/4	.213
MA 1075	1/2	5/16	.318
MA 1076	5/8	3/8	.453
MA 1077	3/4	7/16	.621
MA 1078	7/8	1/2	.826
MA 1079	1	5/8	1.07
MA 1080	1 1/4	3/4	1.70
MA 1081	1 1/2	7/8	2.55
MA 1082	1 3/4	1	4.97
MA 1083	2	1 1/8	8.59
MA 1084	2 1/2	1 3/8	13.6
MA 1085	3	1 7/8	20.4
MA 1086	3 1/2	2	39.8

PULLING FORCE VS. DISTANCE OF CRUCIBLE HORSESHOE MAGNETS



SPECIAL HORSESHOE MAGNETS OF ALNICO IB AND ALNICO VB

MA-1031
Estimated Wght., lbs. —
Alnico IB — 0.243
Alnico VB — 0.258

MA-1022
Estimated Wght., lbs. —
Alnico IB — 0.102
Alnico VB — 0.109

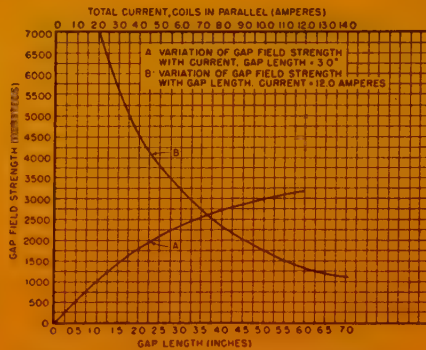
MA-1041
Estimated Wght., lbs. —
Alnico IB — .050
Alnico VB — .053

MA-1060
Estimated Wght., lbs. —
Alnico IB — 2.58
Alnico VB — 2.73

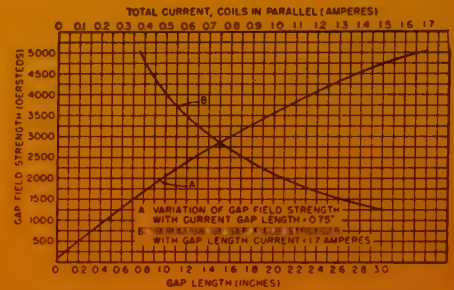
Crucible Magnet Accessories

ELECTRO-MAGNETIC MAGNETIZER

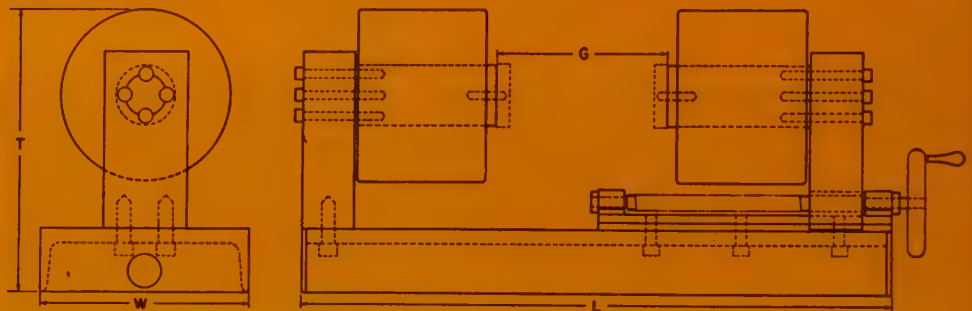
Electromagnetic Magnetizers are general purpose magnetizers for any grade of Alnico... of any size that will fit given space limitations.



Variation of gap field strength with current and gap length for 50,000 ampere turn magnetizer—Catalog No. MC-124.



Variation of gap field strength with current and gap length for 10,000 ampere turn magnetizer—Catalog No. MC-120.



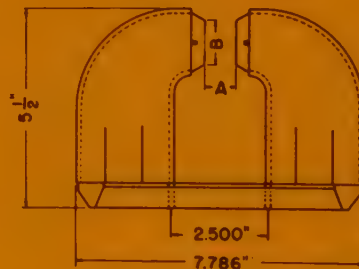
Catalog No.	Total Ampere Turns	Amperes Drawn by Magnetizer at		G (inches)	Pole Face diameter (inches)	L (inches)	W (inches)	T (inches)
		115 Volts DC (Coils in parallel)	230 Volts DC (Coils in series)					
MC-120	10,000	1.8	0.9	0 to 4	2	16 1/2	6	9 3/4
MC-124	50,000	14.0	7.0	0 to 8 1/2	3	28	10	13 3/4
MC-129	125,000	46.0	23.0	0 to 14 1/2	4	43 3/4	15	18 1/4

PERMANENT-MAGNET MAGNETIZER MA-3364

Permanent-Magnet Magnetizers are suitable for magnetizing small Alnico magnets in the sizes indicated by dimensions A and B.

NOTE: DIMENSIONS (A) & (B) TO VARY IN ACCORDANCE WITH CUSTOMER'S REQUIREMENTS. MAX. VALUE OF (A) = 1 1/2" (B) MAY VARY FROM 1/2" TO 1 3/8"

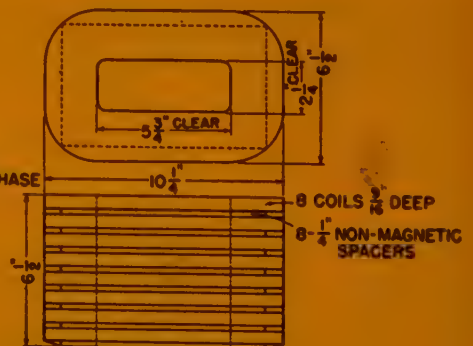
(4) 12-24NC TAP THRU



For further technical information on the selection or application of Crucible Permanent Magnets or Accessories—call your Crucible representative, Crucible Steel Company of America, Henry W. Oliver Bldg., Pittsburgh 22, Pa.

DEMAGNETIZER, CAT. MC-9

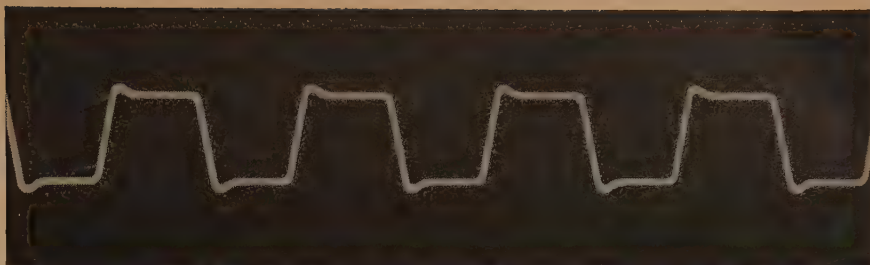
FIELD STRENGTH: 1700 OERSTEDS
VOLTAGE: 230, 60 CYCLES, SINGLE PHASE
CURRENT: 75 AMPERES



CRUCIBLE

Crucible Steel Company of America

**TECHNITROL
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COMPANY
REPRESENTATIVES**



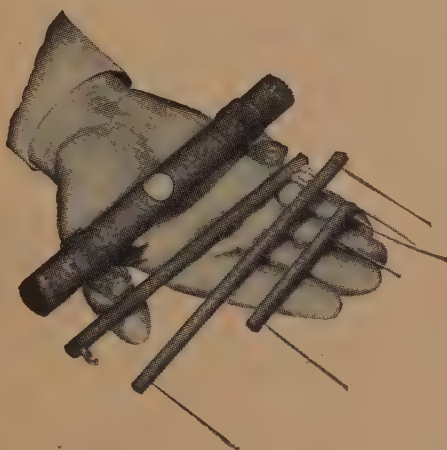
DELAY LINES

standard or specially designed

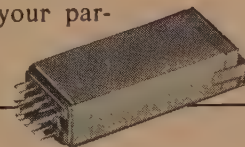
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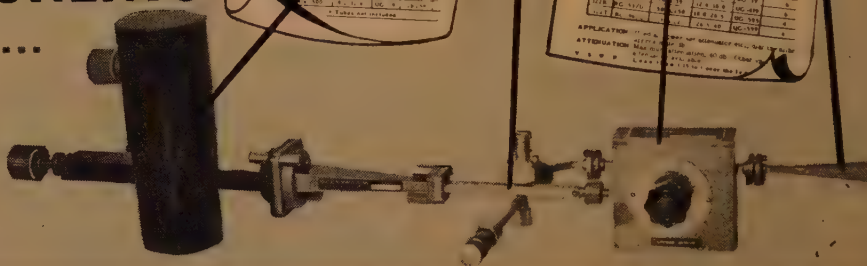
ADAPTERS
ANTENNA
ATTENUATOR—Waveguide
ATTENUATOR—Coaxial
BENDS
CAVITIES
CRYSTAL DETECTOR MOUNTS
DIRECTIONAL COUPLER—Coaxial
DIRECTIONAL COUPLER—Waveguide
FILTER
LINE STRETCHER
LOADS—Coaxial—Low Power
LOADS—Waveguide—Low Power
LOADS—Coaxial—High Power
LOADS—Waveguide—High Power

MIXER—Crystal—Coaxial
MIXER—Crystal—Waveguide
POWER DIVIDER—Coaxial
MULTIPLIERS—Frequency
PROBE
ROTARY JOINT—Coaxial
ROTARY JOINT—Waveguide
SHIFTER (Phase) Waveguide
SHORT—Movable
SLOTTED LINE
SQUEEZE SECTION—Waveguide
STAND
SWITCH—Coaxial

SWITCH—Waveguide
TEE—Coaxial
TEE—Waveguide
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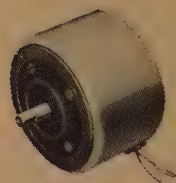
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Sub-fractional and fractional motors in the induction and hysteresis—reluctance synchronous types with associated gear reductions. Available in 50, 60 and 400 cycles, single, dual and variable frequency; also dual voltage. For single, two and three phase operation. Horsepower from 1/3500 to 1/2. Diameter from 1" to 6 5/8".



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From 1" diameter to 6 5/8" diameter. Power up to 1000 VA. Wide frequency range, low harmonic content—delivers sine wave with 2% or less total distortion. Single, dual (sine-cosine) and three phase. For special applications, dual frequency units produce a combination of frequencies.

blowers & fans

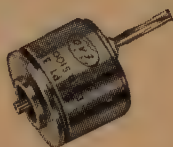
A complete line of light weight centrifugal blowers, ring mounted fans and vane axial fans for cooling electronic equipment and for general purpose use. Capacities up to 1000 cfm with special designs available for high static pressures. Single and double ended; 50, 60 and 400 cycle and variable frequencies (360-1600 cycles).

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As the basic actuating device in AC automatic control systems, EAD's high performance servo motors are designed to meet exacting requirements for good dynamic response, reliability in extreme environments, electrical efficiency and ready availability. EAD offers a range of frame sizes beginning with the utmost in miniaturization. Variations include special lead locations, voltage and power ratings aimed at transistor operation, precision gear heads and adaptation to unusual environmental conditions to 150° C.



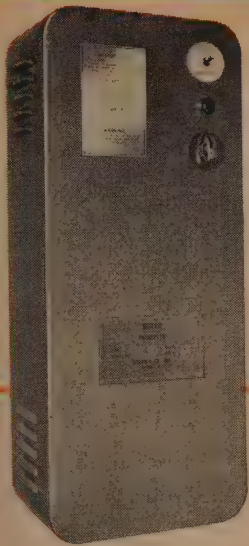
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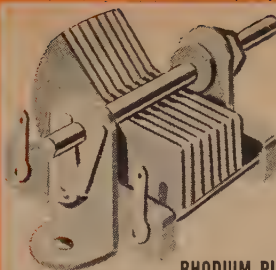
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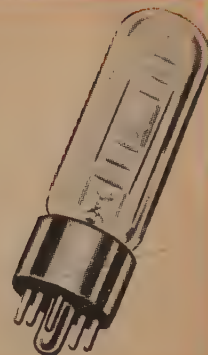


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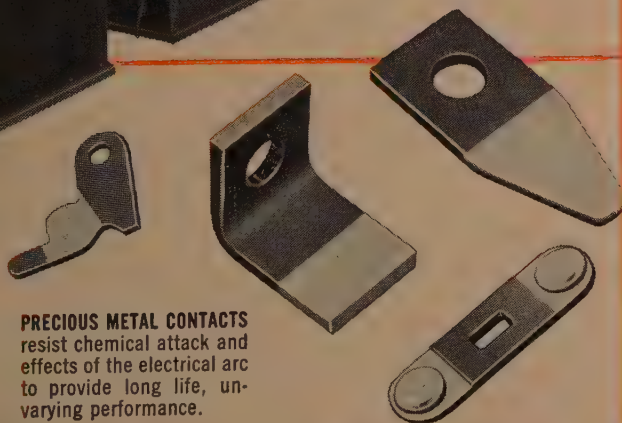
PRECIOUS METAL RUPTURE DISCS resist corrosion and provide adequate openings to protect and relieve pressurized apparatus.



important for the electronic industry



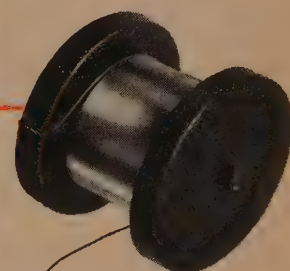
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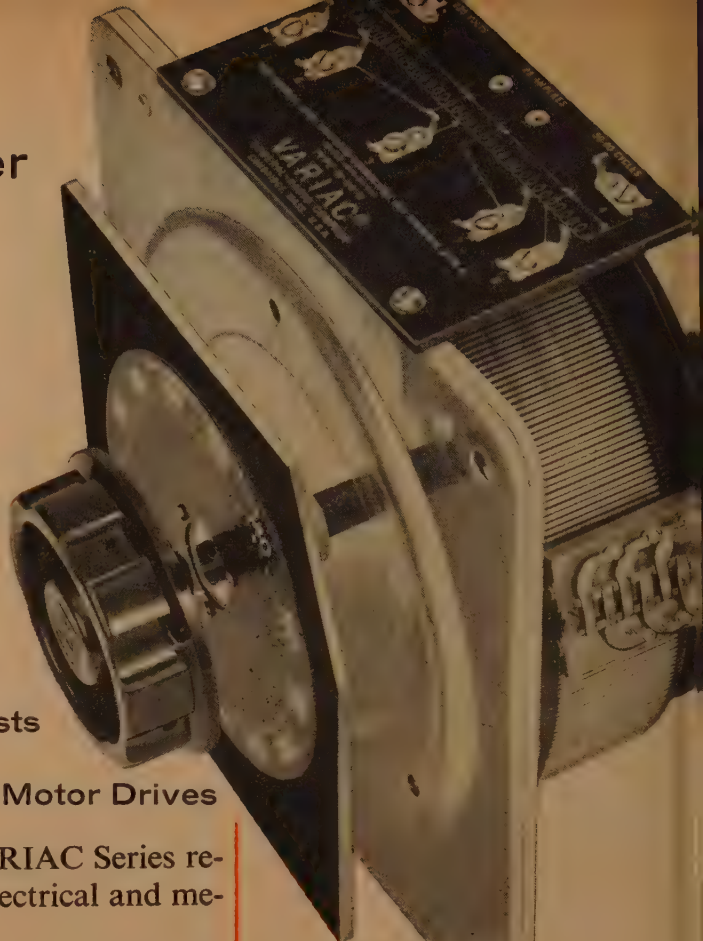
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The newly designed Types W50 and W50H VARIAC Series replaces the popular Types 50A and 50B with many electrical and mechanical improvements.

Current ratings for the new 115-volt and 230-volt models are 50 and 25 amperes, against 40 and 20 for the older types. A built-in protector prevents damage from *sustained* overloads exceeding 160% of rating. This extra safety feature is available when the normal load fusing or breaker is inoperative.

The basic design of the new Type W50 Variacs is along the lines of the other new "W" models in the smaller sizes. Mounting holes and layouts are the same as the old Type 50 for ready interchangeability.



Type W50H

Variac 230-Volt Input,
7.5 KVA, 32.5 Amp. Max. Current.

Type W50 similar except for number of terminals and dial. 115-Volt Input, 5.75 KVA, 50 Amp. Max. Current.

Type 50H VARIACS are equipped with 7 combination screw-solder terminals. Can be used on either 230- or 115-volt lines. Type W50's have 5 terminals. Note engraved wiring diagram on terminal board, showing voltage between terminals.

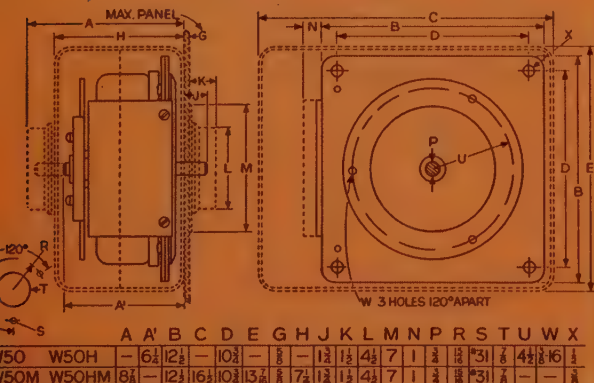
Essential Dimensions

50 Amperes 115-Volt Models

TYPE W50 VARIACS

32.5 Amperes 230-Volt Models

Specifications



	W50 Uncased	W50M Cased	W50H Uncased	W50HM Cased
Input Voltage	115	115	230*	230*
Load Rating (kva)	5.75	5.2	7.5	7.1
Output Voltage	0-135	0-135	0-270	0-270
Rated Current (amp)	50	40	25	20
Maximum Current (amp)	50	45	32.5	31
No-Load Loss at 60 c. (w)	50	50	50	50
Dial Calibrations*	0-115 0-135	0-115 0-135	0-230 0-270	0-230 0-270
Angle of Rotation (deg.)	320	320	320	320
No. Turns on Winding	190	190	298	298
D-C Resistance of Winding (Ω)	.075	.075	.3	.3
Driving Torque (oz.-in.)	200-400	200-400	200-400	200-400
Replacement Brushes	\$5.00 per set	\$5.00 per set	\$5.00 per set	\$5.00 per set
Net Weight (lbs.)	50	57	53	60
Code Word	GATAL	GATER	NITAL	NITER
Price	\$120	\$145	\$120	\$145
Ball-Bearing Surcharge	\$15	\$15	\$15	\$15

*All 230-Volt models can be used on 115-volt lines with rated current limited to one-half of the 230-volt current
*Dial plates are reversible, overvoltage connection calibrations on one side, line voltage on other

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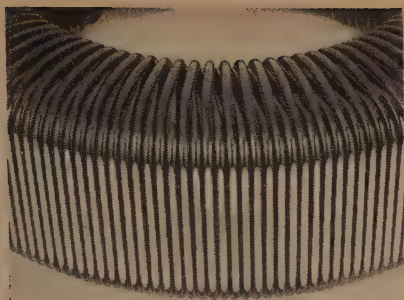
1182 Los Altos Ave., Los Altos, Calif. SAN FRANCISCO



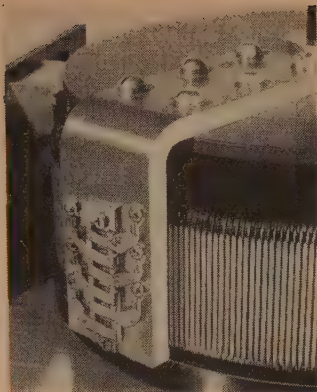
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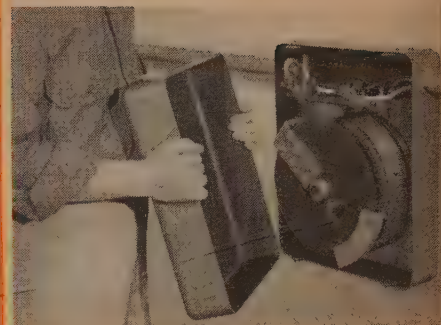
WE SELL DIRECT
Prices are net, FOB Cambridge
or West Co., Mass.



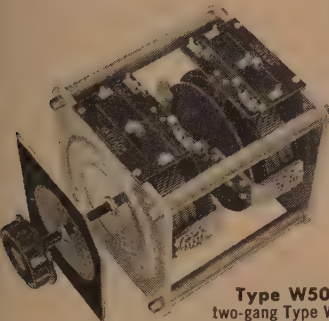
Banked winding is of #7 or #11 AWG wire! Duratrak brush track (for the first time in these high-power VARIACS) is on face of toroidal winding.



Six brushes in multiple, pigtail-equipped brush holders, readily removed for servicing or replacement — copper radiator nose and brush holder conducts current and heat to painted radiator, for maximum heat dissipation.



Wall-mounted Type W50M. Four 1 3/8" conduit knockouts provided for convenience in wiring. Four bolts through corners of base and case attach W50's to wall or panel — 2 screws in top hold cover firmly in place — captive radiator permits shaft to be extended either way for panel or wall mounting without upsetting radiator and brush settings. Note accessibility of terminal board for easy wiring.



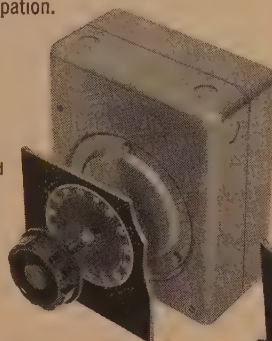
Type W50G2

two-gang Type W50;
115-Volt Input, 11.5 KVA,

100 Amp. Max. Current (with parallel windings)
Note 2-piece base stamped from plate stock, in all W-type VARIACS stronger than cast or die-cast construction

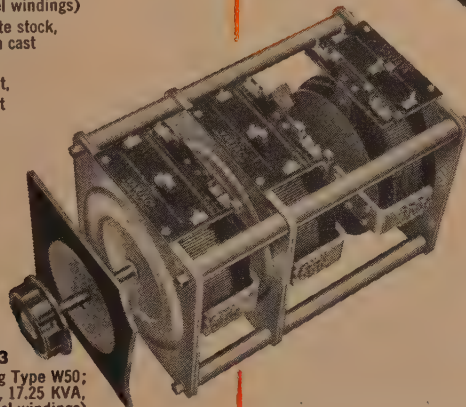
W50HG2 similar; 230-Volt Input,
15 KVA, 65 Amp. Maximum Current

Type W50M
Completely enclosed
Type W50
— 115-Volt Input
W50HM similar;
for 230-Volt Input



Type W50G2M
Completely enclosed 2-gang Type W50
for 115-Volt Input.

W50HG2M similar;
for 230-Volt Input



Type W50G3

3-gang Type W50;
115-Volt Input, 17.25 KVA,

150 Amp. Max. Current (with parallel windings)

W50HG3 similar; 230-Volt Input, 22.5 KVA,
97.5 Amp. Max. Current

Type W50G3M
Completely enclosed 3-gang Type W50
for 115-Volt Input

W50HG3M similar;
230-Volt Input



TYPE W50 Typical Ganged Variac® Assemblies

Single Phase

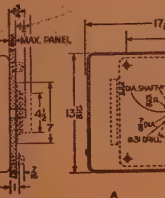
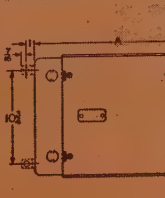
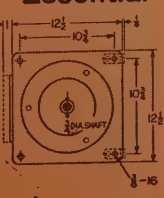
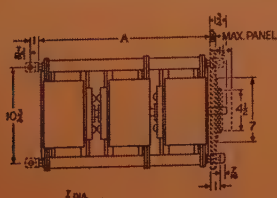
INPUT Volts	OUTPUT		Ampere Max.	Rated	Type	Price	Description	Cablegram Code Word	Net Weight Lbs.
	Kva	Volts							
115	10.4	0-135	90	80	W50G2M	\$310	2-gang — windings in parallel — requires 50-P1 Choke: \$14	GATLBONDU	115 1/2
115	11.5	0-135	100	100	W50G2	260	See above	GATLGANDU	103
115	15.5	0-135	135	120	W50G3M	440	3-gang — windings in parallel — requires 50-P1 and 50-P2 Chokes: \$14 each	GATLBONTY	173 1/2
115	17.25	0-135	150	150	W50G3	385	See above	GATLGANTY	158
230	14.3	0-270	62	40	W50HG2M	310	2-gang — windings in parallel — requires 50-P1 Choke: \$14	NITLBONDU	121 1/2
230	15	0-270	65	50	W50HG2	260	See above	NITLGANDU	109
230	21.4	0-270	93	60	W50HG3M	440	3-gang — windings in parallel — requires 50-P1 and 50-P2 Chokes: \$14 each	NITLBONTY	182 1/2
230	22.5	0-270	97.5	75	W50HG3	385	See above	NITLGANTY	167

Three Phase

230	12.8	0-270	31	20	W50HG2M	310	Open delta circuit	NITLBONDU	121 1/2
230	13	0-270	32.5	25	W50HG2	260	Open delta circuit	NITLGANDU	109
230	18	0-230	45	40	W50G3M	440	Wye circuit	GATLBONTY	173 1/2
230	20	0-230	50	50	W50G3	385	Wye circuit	GATLGANTY	158
460	24.6	0-460	31	20	W50HG3M	440	Wye circuit	NITLBONTY	182 1/2
460	26	0-460	32.5	25	W50HG3	385	Wye circuit	NITLGANTY	167

Ball Bearing Surcharges: 2-gang units — \$20.00; 3-gang units — \$25.00
Driving Torques (oz.-in.): 2-gang units — 400-800; 3-gang units — 600-1200
Dial Calibrations, one side only — 0-10

Essential Dimensions



Motor Drives are available for all Type W50 Variacs. ALL motor-driven units include motor capacitor, adjustable-position microswitches to limit the arc of traverse to any desired position, and ball bearings.

ADDITIONAL prices for equipping any Type W50 VARIAC with motor drive (including the necessary ball bearings) are:

All single units — \$140.00
All two-gang units — \$130.00
All three-gang units — \$135.00

For motor drives, a set-up charge of \$12.00 is prorated for quantity from 1 to 4. No set-up charge is made for quantities of 5 or more.

Traverse times available, in seconds, are 16, 32, 64 or 128 for single units; 32, 64 or 128 seconds for 2- and 3-gang units.

For type number terminology when ordering see page 5 of the current VARIAC BULLETIN "O". It is not necessary to add "BB" to the type number as all motor-driven VARIACS are equipped with ball bearings.



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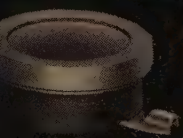
ECONOMY of mass production of many standard Stemco types with literally hundreds of terminal arrangements and mounting provisions means your product costs less to make.

AVAILABILITY of most types is good. Design is flexible for your special applications, tooling is in existence for short-term delivery. If heat control is your problem, Stemco thermostats can provide the answer.

AA-4092

*Refer to Guide 400 EO for U.L. and C.S.A. approved ratings.

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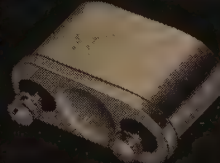
TYPE A*
Semi-enclosed

Electrically independent bimetal disc for fast response and snap-action control. Operation from -10° to 350°F or higher on special order. Various mounting terminals. Average rating 8 1/2 amps at 115 volts AC, 4 amps at 230 volts AC and 28 volts DC. Bulletin 3000.



TYPE A*
Hermetically sealed

Electrically identical to semi-enclosed Type A. Temperatures from -10° to 300°F. Various enclosures and mountings, including brackets, available. For appliance, electronic, apparatus applications. Bulletin 3000.



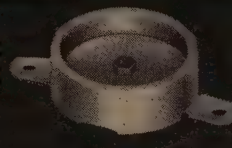
TYPE C
Hermetically sealed

Electrically identical to semi-enclosed Type C but sealed in crystal can. Also supplied as double thermostat "alarm" type. Turret terminals or wire leads. Request Bulletin 5000.



TYPE C
Semi-enclosed

Small, positive-acting. Electrically independent bimetal strip for operation from -10° to 300°F. Rated at approximately 3 amps, depending on application. Terminals and mountings to customer specifications. See Bulletin 5000.



TYPE M*
Semi-enclosed

Electrically independent bimetal disc type for appliance and electronic applications, from -10° to 350°F. Rating: 8 amps at 115 volts AC, 4 amps at 230 volts AC and 28 volts DC. Virtually any type terminal. Bulletin 6000.



TYPE M*
Hermetically sealed

Electrically same as semi-enclosed Type M. Can be furnished with pin or screw-type terminals, leads and various mounting brackets. Write Bulletin 6000.

STEMCO THERMOSTATS



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● BROADBAND FORWARD WAVE AMPLIFIERS

10 MW STANDARD 30 DB MIN. SMALL SIGNAL GAIN 25 DB NOISE FIGURE	HA-7▲ 0.5-1.0 KMC \$750.00 6-8 WEEKS DELIVERY	HA-5▲ 1.0-2.0 KMC \$750.00 4-6 WEEKS DELIVERY	HA-22▲ 1.6-2.4 KMC \$750.00
1 W STANDARD 30 DB MIN. SMALL SIGNAL GAIN 30 DB NOISE FIGURE	HA-8 ^D 0.5-1.0 KMC	HA-18 ^D 1.0-2.0 KMC	
10 MW MEDIUM NOISE 30 DB MIN. SMALL SIGNAL GAIN 15 DB NOISE FIGURE		HA-17▲ 1.0-2.0 KMC \$850.00 6-8 WEEKS DELIVERY	HA-19▲ 1.6-2.4 KMC \$850.00
LOW NOISE 30 DB MIN. SMALL SIGNAL GAIN 10 DB MAX. NOISE FIGURE		HA-14▲ 1.0-2.0 KMC \$1,500.00 6-8 WEEKS DELIVERY	
PULSED	1 W MIN. 30 DB MIN. SAT. GAIN 0.1 MAX. DUTY CYCLE		
	2 W MIN. 30 DB MIN. SAT. GAIN 0.1 MAX. DUTY CYCLE		
	10 W MIN. 30 DB MIN. SAT. GAIN 0.1 MAX. DUTY CYCLE		

● DISPERSIVE FORWARD WAVE AMPLIFIERS

VOLTAGE TUNED 20 PER CENT BANDWIDTH 15 DB GAIN	DA-3 0.5-1.0 KMC \$850.00 6-8 WEEKS DELIVERY	DA-2 1.0-2.0 KMC \$750.00 6-8 WEEKS DELIVERY
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● BACKWARD WAVE AMPLIFIERS

VOLTAGE TUNED 0.1 TO 0.5 PER CENT BANDWIDTH 15 DB GAIN
--

● PERMANENT MAGNET FOCUSED AMPLIFIERS

10 MW STANDARD 30 DB SMALL SIGNAL GAIN
1 W STANDARD 30 DB MIN. SMALL SIGNAL GAIN

● BACKWARD WAVE OSCILLATORS

10 MW MIN. POWER OUT VOLTAGE TUNED

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PRICE NOTE: above prices apply to small quantities only. Subject to change without notice. A 15 per cent credit will be allowed upon return of the used encapsulated tube when reordering. Shipment made from F.O.B. Menlo Park, California, via air freight. Terms: .5 per cent in 10 days, net 30 days.

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● BACKWARD WAVE AMPLIFIERS

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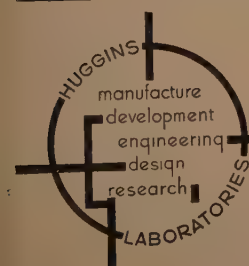
● BACKWARD WAVE OSCILLATORS

HO-1 2.0-4.0 KMC \$1,000.00 4-6 WEEKS DELIVERY	HO-3 3.75-7.0 KMC \$1,000.00 4-6 WEEKS DELIVERY HO-10 ^D 3.7-5.9 KMC HO-11 ^D 5.2-8.3 KMC HO-13 ^D 4.0-8.0 KMC	HO-2 7.5-14.0 KMC \$1,000.00 4-6 WEEKS DELIVERY	HO-4 12.0-18.0 KMC \$1,500.00 4-6 WEEKS DELIVERY
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● SPECIAL PURPOSE TUBES

HA-16 1.8 KMC IN, 9.0 KMC OUT FREQ. MULT. \$850.00 6-8 WEEKS DELIVERY		HA-10 8.2-12.4 KMC 100 MW AMPLIFIER \$850.00 4-6 WEEKS DELIVERY	
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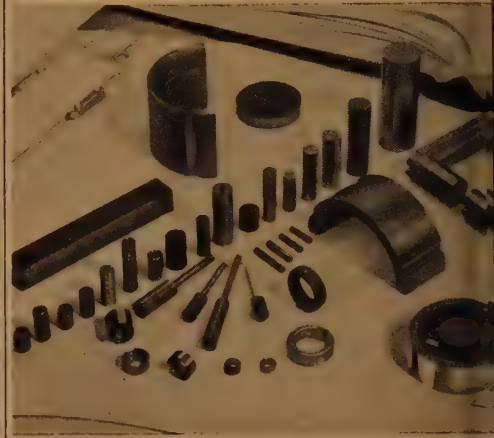
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C and E cut cores, tape wound cores, and bobbin cores..



Mo-Permalloy powder cores.



Iron powder cores.

TYPES "C" AND "E" CUT CORES

Available in more than 500 standard sizes and almost any special size, Arnold "C" and "E" Cores are made from precision-rolled Silectron strip (highly oriented silicon steel) in 1, 2, 4 or 12-mil thicknesses and a wide variety of window sizes and core areas, for high and low-frequency applications. Sizes range from a fraction of an ounce to hundreds of pounds.

Arnold Bobbin Cores are available in a wide range of sizes, tape thicknesses, widths and number of wraps to suit the ultimate use of the core. Magnetic materials usually employed are Deltamax, Square Permalloy and Supermalloy, in standard thicknesses of 1, 1/2, 1/4 and 1/8 mil. Special advantages derive from Arnold's position as a fully-integrated producer of wound cores, able to maintain precise control over every production operation . . . melting, rolling, winding, testing, etc.



Write for Bulletin SC-107

Insulated strip of the proper width is wound on a mandrel, then heat treated, bonded and cut into halves. Careful control results in accurately dimensioned and matched core halves whose effective air gap at the butt joint is very small. Rigid standard tests are employed for both "C" and "E" types of cores, and special tests where required.

TAPE WOUND CORES

Depending upon the specific properties required, Arnold Tape Wound Cores are available made of Deltamax, 4-79 Mo-Permalloy, Supermalloy, Mumetal, 4750 Electrical Metal, or Silectron . . . in standard tape thicknesses of 1, 2, 4 or 12-mils, and in ultra-thin gauges of 1/2 and 1/4-mil where required.



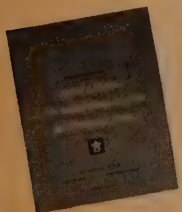
Write for Bulletin PC-104B

MO-PERMALLOY POWDER CORES

These toroids provide high Q in a small volume, characterized by low eddy current and hysteresis losses.

Arnold Mo-Permalloy powder cores are supplied in four standard permeabilities: 125, 60, 26 and 14 Mu. They provide constant permeability over a wide range of flux density. The 125 Mu cores are recommended for use up to 15 kc; the 60 Mu at 10 to 50 kc; the 26 Mu at 30 to 75 kc; and the 14 Mu at 50 to 200 kc. Many of these cores may be furnished stabilized to provide constant permeability ($\pm 0.1\%$) over a specific temperature range.

Arnold Mo-Permalloy powder toroids are available in a wide range of sizes, to obtain nominal inductances as high as 281 mh/1000 turns. They are given various types of enamel and varnish finishes, some of which permit winding with heavy Formex insulated wire without supplementary insulation over the core.



Write for Bulletin TC-101A

This gapless type of core construction results in maximum effective working permeability with minimum flux leakage. Practically any size core can be supplied, from a fraction of a gram to hundreds of pounds. Toroidal cores are made in 30 standard sizes with protective nylon or aluminum cases. Special sizes of toroidal cores, and all square or rectangular tape wound cores, are produced to individual requirements.

BOBBIN CORES

These cores, fabricated by winding ultra-thin tape of high-permeability magnetic materials on ceramic bobbin cores, possess ideal qualities for use in electronic computer assemblies. Their desirable properties include quite rectangular hysteresis loops, relatively low coercive values and high saturation densities; plus temperature stability and the ability to shift in a few microseconds from negative remanence to positive saturation, and vice versa, under conditions of pulse excitation.



Write for Bulletin TC-108



Write for Bulletin PC-109

IRON POWDER CORES

Arnold quality control of iron powder cores includes the maintaining of rigid electrical, physical and dimensional specifications unmatched in the industry. A wide selection of cores is available, from simple cylinders to special cores of complicated design. The line includes all standard types and sizes of threaded cores, cup, sleeve, slug and cylindrical insert cores: for use in antenna and RF coils, oscillator coils, IF coils, perm tuning, FM coils, television RF coils, noise filter coils, induction heating and bombardier coils, and other low frequency applications. A standard series of iron powder toroids is also manufactured, conforming to the standard sizes proposed by the Metal Powder Association.

The most complete line in the industry ...made by a fully integrated producer



Sendust powder cores.



Various types and sizes of sintered Alnico magnets.



A wide variety of cast Alnico magnets.

SENDUST POWDER CORES

Write for Bulletin SDC-110

Sendust Powder Cores are available in a wide selection of sizes, ranging from .800" O.D. to 3.346" O.D., and in permeabilities of 10, 13, 25, 30, 50 and 80, although not all sizes are available in all permeabilities.

Sendust cores possess magnetic properties that are generally superior to iron powder cores, but inferior to Mo-Permalloy powder cores in the audio and carrier frequency range. The eddy current loss for Sendust cores is lower than that of Mo-Permalloy powder cores, but the hysteresis loss of Sendust cores is substantially higher, and they also have higher values of electrical resistivity. In other characteristics of powder cores, the two types are somewhat similar, but Sendust cores contain no scarce or strategic materials and can offer a core source in times of alloy shortage.

ALNICO MAGNETS—Cast and Sintered

Arnold manufactures permanent magnets from all grades of Alnico, although Alnico V is usually the preferred type due to the high value of energy product of that alloy. Alnico magnets are quite hard and somewhat brittle and may be machined only by grinding. Most sizes and shapes are manufactured as sand castings and are made to the customer's drawings and specifications. Some types and shapes of Alnico Magnets are carried as stock items.

Some small sizes of magnets may be furnished in sintered Alnico, and a wide range of shapes are carried in stock for quick delivery. Special shapes made in this way, however, require rather expensive dies.



Write for Bulletin GC-106B

SPECIAL MAGNETIC MATERIALS

Write for Bulletin GC-106B

Vicalloy is a permanent magnet alloy containing about 10% vanadium, 50% cobalt and the balance iron. It may be fabricated in the form of castings, hot rolled bars and forgings or cold rolled strip, wire and tubing. After suitable heat treatment, the material is quite readily machinable. The alloy finds its greatest usefulness in the form of forged rotors, stamped parts and special recording tape. The coercive force, H_c , is about 250 oersteds, the residual induction, B_r , is about 7500 gauss and the energy product, $(BH)_{max}$, is about 0.8×10^4 .

Supremendur is a new material composed of about 2% vanadium, 49% iron and 49% cobalt. It work hardens slowly and can be rolled from .090" to less than .001" without intermediate softening treatments. Even after severe cold reduction, it remains ductile and can be bent back upon itself without fracture. Experimental cores measured at room temperature showed a coercive force, H_c , of 0.26 oersteds, a residual induction, B_r , of 21,000 gauss, and a maximum permeability, μ , of 66,000 at 20,000 gauss. Presently, it appears to be best suited for such applications as power transformers, pulse transformers, magnetic amplifiers, telephone receiver diaphragms, and switching and memory devices.

Cunife is a permanent magnet alloy of copper, nickel and iron which is malleable, ductile and machinable, even after it has been age hardened. The magnetic properties of Cunife are developed by cold working and are directional, with the best magnetic properties found only in the smaller sizes of rods or wires.



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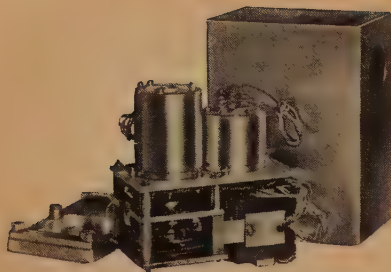
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An incremental synchro positioner before wiring to header and hermetic sealing. The synchro rotor is stepped in one or fifteen degree increments clockwise or counter-clockwise depending upon which of four coils is momentarily energized by a d-c pulse. The synchro can be rotated any number of degrees or revolutions. Cylindrical member next to the synchro resets it to electrical zero if a pulse is applied to "reset" circuit.



Type 9 motor-driven induction generator driving two Type 11CT synchros through gear train having ratio of 1500:1. Slip clutch permits one control transformer to operate when second control transformer has shaft restrained by stops. Cams close two switches during specified degrees of synchro rotation.



SERVO ASSEMBLY—Type 9 motor-driven induction generator driving a Type 11 synchro through a gear train having a ratio of 12,000:1. Rear shaft of synchro carries contact arm which restricts shaft rotation against adjustable stops and closes switch during the specified arc.

**control
problems
like
yours**

...with but one solution

Typical of all Transicoil solutions are the three illustrated here. They "do the job right" because each is designed for a single application... by a company whose major function is to provide complete servo assemblies precisely engineered and manufactured to solve individual servo control problems.

Of course, if you want servo *components*, you'll find Transicoil's control motors, motor-gear train combinations, motor-gear train-generator combinations, and servo amplifiers built to the highest order of precision and accuracy. But it is in the "package" engineering of unique assemblies that Transicoil's experience and creative imagination offer the greatest value. And in most cases, these assemblies cost no more than the individual components would purchased separately. *That's why it pays to check your servo control problems out with Transicoil first.* For further information, call your nearest Transicoil representative.

looking for miniaturization?

If you have a problem in miniaturization of a control system, chances are Transicoil can solve it for you. For just as Transicoil's introduction of plate-to-plate wiring eliminated the transformers once necessary in servo systems, the company is now marking new milestones in system miniaturization with its new Size 8 motors, motor-

driven induction generators, and transistor amplifiers. This engineering ability can be put to work on your projects—with no obligation. You pay only for results—on a fixed fee basis for equipment delivered and performing properly. Transicoil is a manufacturer, not a research and development organization.

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Illustrated below is a partial listing of more than 10,000 different types of HERMETIC Seals:

1. Tubular Button Seals for rectifiers, condensers, filters and other components.
2. Crystal Holders—wire and pressure mounted.
3. Individual Terminals and Feed Throughs for relays, transformers, networks, and general applications.
4. Terminal Strips for transformers and general applications.
5. Stand-Off Terminals for chassis work.
6. Multi-Terminal Headers—all glass and individual bead design for relays, networks, and transformers.
7. Transistor and Diode Enclosures.
8. AN Connectors.
9. Rectangular Plugs and Connectors.
10. Polarized Plugs.
11. Refrigerator Seals.

Write for newest catalog 657-A



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Hermetic SEAL

GLASS-METAL HEADERS
For Every Electronic Use

The prime source for variety in sizes, terminations and shapes; quality; performance—at thoroughly acceptable cost to you. Special terminals for any purpose. In VAC-TITE* Compression Seals as well as conventional kovar designs.

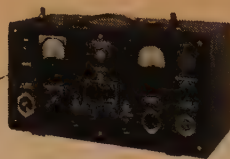
*VAC-TITE is HERMETIC's vacuum-proof, compression-construction, glass to metal seal. In addition to special shapes, many standard sizes such as .800 O.D. and .900 O.D. multi-terminal headers and a large variety of individual terminals are available in VAC-TITE Compression Seals.





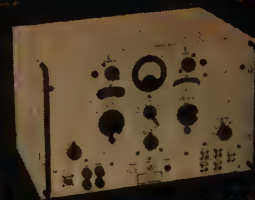
SIGNAL GENERATOR
SG-153 1800-4000 mc

1800-4000 MC $\pm 1\%$ continuous. Multipurpose lab. and production precision signal source, pulse mod., internal and external mod. provisions, line Freq. FM, complete sync IN and OUT provisions. Output $+4$ to -130 dbm, continuously variable.



HV INSULATION TESTER
T-4

0 to 15 KVDC output, continuously variable, meter for voltage and leakage current; SAFE: NON-DESTRUCTIVE TESTS — 150 ua max. test current. No capacitive errors. Tests ignition harnesses, components, transformers etc.



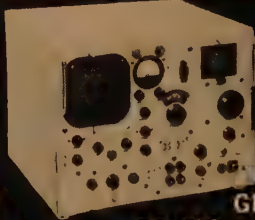
SIGNAL GENERATOR
SG-161 900-2100 mc

900-2100 MC $\pm 1\%$ continuous. Multipurpose lab. and production precision signal source, pulse mod., internal and external mod. provisions. Complete sync IN and OUT facilities. Output $+4$ to -130 dbm, continuously variable.



Q-PROBE
3-40 mc Circuit Probe

Low-cost oscilloscope attachment for RF scope displays 3 to above 30 MC, continuously variable, high sensitivity; sync output locks scope sweep. Views RF signals; checks two-tone patterns. SSB carrier nulls, filters, RF squegging, parasitics, overall Xmitter mod. characteristics.



SWEEP GENERATOR
SG-132 15-400 mc

Precision Sweep and CW, 15 to 400 MC, .01% CW accuracy WIDE deviation, 40% OF ANY CENTER FREQUENCY. Integral dc scope, crystal markers. Output flatness 0.25 db; 400 cps internal AM to 50%; extreme sweep linearity. $+4$ to -130 dbm output, continuously variable.



SIGNAL GENERATOR
SG-109 400-1000 mc

400 to 1000 MC $\pm 1\%$ Multipurpose lab. and production precision signal source; continuous pulse and amplitude mod., internal and external mod. provisions; complete sync IN and OUT facilities. Output $+4$ to -130 dbm continuously variable.

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186 GRANITE ST. MANCHESTER, N.H.

(Div. of Van Norman Industries)



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CAVITY OSCILLATOR ASSY.
2-4 KMC

2 to 4 KMC $\pm 1\%$ continuous tuning Klystron coax. cavity assy; $+6$ to -130 dbm output; piston attenuator; complete level monitoring facilities. For inclusion in new equipment or test equipment. Modifications available to customers specifications.



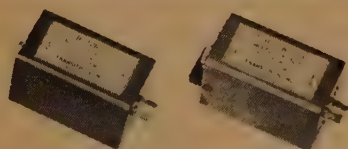
MULTISPEED AIRCRAFT ACTUATOR T-113

Rotary actuator assembly including solenoid speedshift for high-torque applications. Typical of Transitron-developed special electromechanical devices incorporating motor and gear drives. Extensive engineering and production facilities for design and manufacture to customers specs. available.



OSCILLATOR CAVITY ASSY.
1-2 KMC

1 to 2 KMC $\pm 1\%$ continuously tuning Klystron coax. cavity assembly; $+3$ to -130 dbm output; piston attenuator, level monitoring meter and bolometer facilities. For additions to or inclusion in new or test equipment. May be modified to customer's specifications.



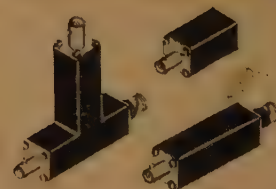
T/R SWITCHES
Models 2000 & 3000

TRANSMIT-RECEIVE Switches, 1 KW max. power, 3 to 30 MC, no tuning adjustments, no RF relays; Low VSWR; insertion loss less than 1 S-unit; no TVI; Model 2000 has integral receiver muting relay. Low cost, high efficiency. Widely used in communications and amateur equipment.



TRANSDUCER
TD 132

High precision reciprocating mechanism. Driver unit for precision sweep mechanisms, FM cavity oscillators, magnetron sweeping etc., 20 to 30 cycle input; up to $\frac{1}{2}$ in. peak-peak deflection, 0.5 lb. loading approximately. COMPLETELY BALANCED dynamically — No vibration. No susceptibility to external shock and vibration.



VHF ACCESSORIES

Complete line of VHF terminations, detectors, attenuators, probes, impedance matching pads; operating range to 500 MC with low VSWR; BNC connectors. For use with all HF and VHF 50 and 75 ohm signal and sweep generators.

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All industrial mill forms of precious and non ferrous contact materials — solid or laminated — custom made to exact specifications. All standard and many special alloys of gold, silver, platinum and palladium.

Standard laminated forms include toplay, overlay, inlay, thru-lay and edgelay. Solid Coin Silver Wave-guide Tubing. Custom Rerolling and redrawing.

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Complete engineering and tooling facilities for custom manufacturing from sample quantities to large production runs. Prompt quotations and recommendations in answer to inquiries.

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SILVER

Think of Handy & Harman
Because . . .

- Handy & Harman is the leading manufacturer of silver and silver alloys for industry.
- During 90 years in precious metals, Handy & Harman has helped develop many of the uses of silver by industry.
- Experience and research have established Handy & Harman as the Number 1 authority on silver.

This experience and knowledge is at your call. Whatever your silver requirements, Handy & Harman is anxious to be of service.

Here are some of the forms Handy & Harman manufactures:

- Fine Silver (wire, strip and foil)
- Silver anodes and grain for plating
- Silver contact alloys
- Silver powders
- Silver flakes and paints
- Silver brazing alloys
- Silver electronic solders
- Silver sintered metals
- Solder-flushed silver alloys
- Silver chloride and oxide
- Coin Silver (wire and strip)
- Silver Bi-metals



For your information file

We have four Technical Bulletins giving engineering data on the properties and forms of Handy & Harman Silver Alloys. We would like you to have any or all of those that particularly interest you. Your request, by number, will receive prompt attention.

Fine Silver	Bulletin A-1
Silver-Copper Alloys	Bulletin A-2
Silver-Magnesium-Nickel	Bulletin A-3
Silver Conductive Coatings	Bulletin A-4

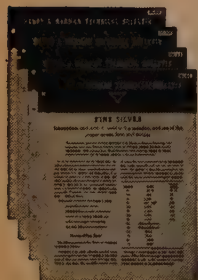
Your NO. 1 Source of Supply and Authority on Silver Alloys



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quality capacitors and RF noise filters

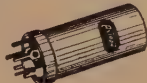
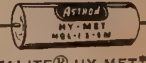
to meet all specifications

Astron offers you a complete, wide line of versatile Capacitors and RF Noise Suppression Filters for your most exacting requirements. Reliability of each Astron capacitor is insured by:

- Highest quality raw materials
- Advanced production techniques
- Strict quality controls and inspections
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- Custom-engineered designs

The types and styles illustrated are but a few of the many available. . . write today for complete technical and engineering data on Astron products.



SAFETY MARGIN* ELECTROLYTICS	 MINIATURE METAL-CASED TUBULARS — TYPE MM	 SUBMINIATURE ELECTROLYTICS — TYPE ET	 CARDBOARD-CASED ELECTROLYTICS — TYPE ES	 TWIST PRONG ELECTROLYTICS — TYPE EY
	 BATHTUB CASE CAPACITORS — TYPE ED	 METAL SCREW-BASE ELECTROLYTIC — TYPE E	 ELECTROLYTICS FOR TRANSISTORIZED, PRINTED CIRCUIT APPLICATIONS — TYPE EZ TYPE EX	
PAPER CAPACITORS	 MOLDED PAPER TUBULAR — TYPE AM	 BATHTUB PAPER CAPACITOR — TYPE ADM	 METEOR* BATHTUB CAPACITOR — TYPE ADZ	 METEOR* METAL-CASED POLYESTER PLASTIC CAPACITORS — TYPE XQP
	 CERAMIC CASED PAPER TUBULAR — TYPE AP	 OIL-FILLED METAL TUBULARS — TYPE AR MF	 MOLDED PLASTIC TUBULAR — BLUE-POINT® — TYPE BP	 METEOR* SUBMINIATURE GLASS-TO-METAL SEALED TUBULARS — TYPE AQF TQF
METALLIZED PAPER CAPACITORS	 METALITE® BATHTUB CAPACITORS — TYPE MD	 METALITE® GLASS-TO-METAL SEALED TUBULARS — TYPE MQC	 METALITE® HY-MET* CARDBOARD TUBULARS — TYPE MLL	 METALITE® HY-MET* SEAMLESS CASE CAPACITOR — TYPE MEL
METALITE® CARDBOARD TUBULARS — TYPE ML	 METALITE® METAL-CASED TUBULARS — TYPE MRF	 METALITE® TERNEPLATE "SQUEEZE SEAM" CASES — TYPE MXJ	 METALITE® HY-MET* BATHTUB CAPACITORS — TYPE MDL	 METALITE® HY-MET* GLASS-TO-METAL SEALED TUBULARS — TYPE MQL
RF NOISE SUPPRESSION FILTERS	ASTRON'S FOUR STEP FILTER SERVICE PLAN HAS SOLVED THOUSANDS OF INDUSTRY'S AND GOVERNMENT RF FILTER PROBLEMS. THIS "PACKAGED" SERVICE INCLUDES: 1. DEFINITION OF REQUIREMENTS 2. ENGINEERING ANALYSIS 3. PROTOTYPE TESTING 4. EFFICIENT SOLUTION OF PROBLEM ASTRON WILL CUSTOM-ENGINEER AND MASS PRODUCE A FILTER SPECIFICALLY FOR YOUR EQUIPMENT			

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A wholly-owned subsidiary
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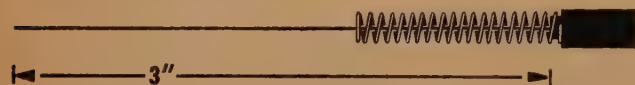
GRAPHALLOY SILVER GRAPHALLOY BRUSHES

Silver GRAPHALLOY Brushes have been widely used because of LOW and CONSTANT CONTACT DROP, EXTREMELY LOW ELECTRICAL NOISE and LONG LIFE... especially for rotating strain gages, thermocouple circuits, synchros, guided missiles, fire control equipment, transducers, radar and sonar equipment, servo-mechanisms, selsyns, dynamotors and other avionic applications.

The GRAPHALLOY process was patented over 40 years ago and the name GRAPHALLOY has been our registered trademark since that time. While this company has been selling GRAPHALLOY for over 40 years, recent developments have added materially to its properties. Over 200 grades are now used in a wide variety of applications. Silver GRAPHALLOY Brushes on 1/2"-diameter coin silver slip rings have been used successfully in highly critical electrical circuits at speeds up to 100,000 R.P.M. Our Engineering Department will assist in determining the exact grade of GRAPHALLOY for your needs. Ask for our Brush Inquiry Form 109.

BRUSH and SPRING ASSEMBLY

Silver GRAPHALLOY Brushes are available for the standard Brush Holders described in the next column. Springs are supplied, as part of the assembly, to give the correct brush pressure for each brush application. Shunts are provided to insure extremely low electrical noise level and for carrying heavy currents.



SLIP RINGS—SOLID COIN SILVER

Standard Coin Silver Slip Rings, both cylindrical and flat types, are illustrated below. We recommend the cylindrical type ring with three brushes per ring... spaced at 120°. The cylindrical type are designed for press fitting over standard steel shafting. The flat type rings are designed for nesting either on an insulated plate or for molding into insulation. Insulated slip rings of either type or slip-ring assemblies can be furnished with leads attached.



flat



cylindrical

Standard "Flat" rings have 1/4" radial contact surface and 1/8" radial spacing between adjacent rings.

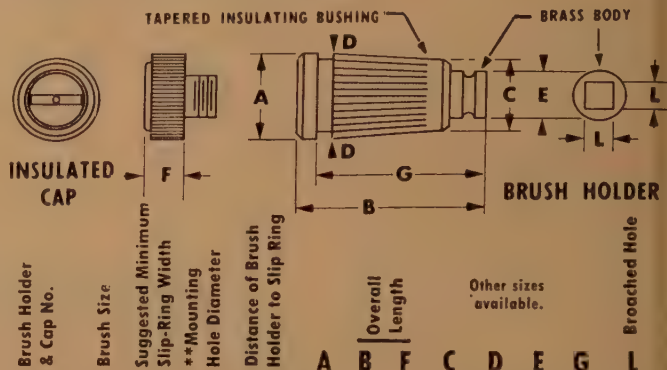
Part No.	OD	ID	Thickness
168-20	1 1/4	3/4	3/16
168-32	2	1 1/2	3/16
168-44	2 3/4	2 1/4	3/16
168-56	3 1/2	3	3/16
168-68	4 1/4	3 3/4	3/16
168-80	5	4 1/2	3/16
168-92	5 3/4	5 1/4	3/16
168-104	6 1/2	6	3/16
168-116	7 1/4	6 3/4	3/16
168-128	8	7 1/2	3/16
168-140	8 3/4	8 1/4	3/16
168-152	9 1/2	9	3/16
168-164	10 1/4	9 3/4	3/16
168-176	11	10 1/2	3/16
168-188	11 3/4	11 1/4	3/16
168-200	12 1/2	12	3/16
168-212	13 1/4	12 3/4	3/16
168-224	14	13 1/2	3/16
168-236	14 3/4	14 1/4	3/16
168-248	15 1/2	15	3/16
168-260	16 1/4	15 3/4	3/16
168-272	17	16 1/2	3/16
168-284	17 3/4	17 1/4	3/16
168-296	18 1/2	18	3/16
168-308	19 1/4	18 3/4	3/16
168-320	20	19 1/2	3/16

Part No.	OD	ID	Width
1165-4**	1/4	.127/.123	3/16
1165-6**	3/8	.252/.248	3/16
1165-8**	1/2	.377/.373	3/16
1165-10**	3/4	.502/.498	3/16
1165-12**	3/4	.627/.623	3/16
1165-14**	7/8	.752/.748	1/4
1165-16**	1	.877/.873	1/4
1165-18**	1 1/8	1.000/.996	1/4
1165-19	1 1/8	1.000/.996	1/4
1165-23	1 1/2	1.250/1.246	1/4
1165-27	1 7/8	1.500/1.496	1/4
1165-35	2 1/8	2.000/1.996	1/4
1165-43	2 1/2	2.500/2.496	1/4
1165-52	3 1/8	3.000/2.996	5/16
1165-60	3 3/8	3.500/3.496	5/16
1165-68	4 1/8	4.000/3.996	5/16
1165-76	4 3/8	4.500/4.496	5/16
1165-84	5 1/8	5.000/4.996	5/16
1165-92	5 3/8	5.500/5.496	5/16
1165-102	6 1/8	6.000/5.996	5/16
1165-118	7 1/8	7.000/6.996	5/16
1165-134	8 3/8	8.000/7.996	5/16
1165-150	9 3/8	9.000/8.996	5/16
1165-166	10 3/8	10.000/9.996	5/16

**Available also in coin silver .025" thick inlaid over brass. For inlaid omit "S" from part number.

COPPER SLIP RINGS, flat or cylindrical, are available in the above sizes.

BRUSH HOLDER and CAP



Brush Holder & Cap No.	Brush Size	Suggested Minimum Slip-Ring Width	**Mounting Hole Diameter	Distance of Brush Holder to Slip Ring	Overall Length	A	B	F	C	D	E	G	L
14326	1/8 sq.	3/16	13/32	1/16 min.	.437	7/8	3/16	.404	.418	.281	25/32	.129	
11509*	5/32 sq.	3/16	13/32	1/16 min.	.437	7/8	3/16	.404	.418	.281	25/32	.160	
11570*	3/16 sq.	1/4	7/16	1/16 min.	.484	7/8	3/16	.441	.451	.313	25/32	.192	
11527*	1/4 sq.	5/16	9/16	1/8 min.	.616	1 1/8	3/16	.561	.573	.438	1 1/16	.256	

Request and fill in Brush Inquiry Sheet, Form 109, so that we can supply the proper grade of brush material.

*Shunts are provided. **Mounting hole diameter for brush holder dimension D.

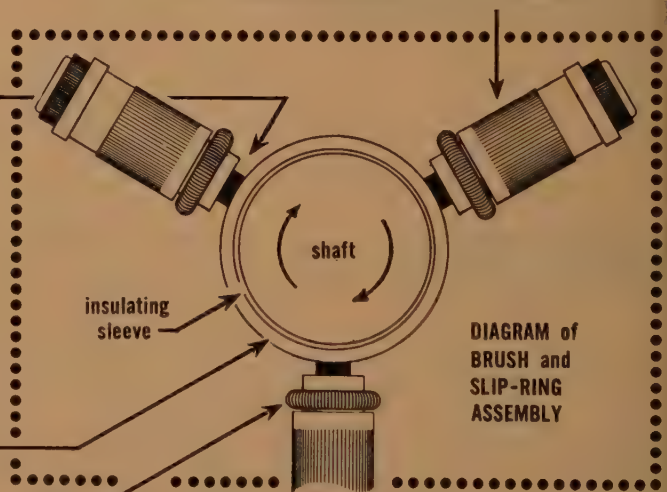


DIAGRAM of BRUSH and SLIP-RING ASSEMBLY



(garter springs)

CONNECTORS

These silver-plated coil spring Connectors make for positive electrical connection to the brass body of the brush holder by snapping into the groove on the holder. The connecting lead can be pre-soldered to the Connector.

Garter Spring Connectors	Brush Size	Brush Holder No.
127-9	1/8 sq.	14326
127-9	5/32 sq.	11509
127-10	3/16 sq.	11570
127-14	1/4 sq.	11527

GRAPHALLOY BUSHINGS

Replace oil-lubricated bushings in synchros, instruments, timers and missiles.

Advantages: 1) Lower friction at room temperatures. 2) No oil to solidify at low temperatures. 3) No oil to carbonize at prolonged elevated temperatures.

Ask for Data Sheets 270 and 277 on Miniature Bronze-GRAPHALLOY Bushings.

GRAPHALLOY CONTACTS

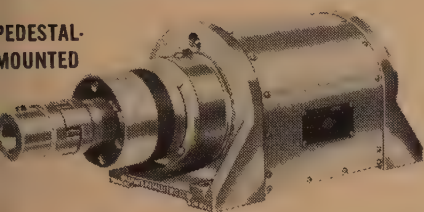
GRAPHALLOY, because of its inherent, non-welding and arc-quenching characteristics, is used widely for contacts... especially where positive breaking of a circuit is required.

CALL ON OUR OVER 40 YEARS OF DESIGN EXPERIENCE FOR HELP IN SOLVING YOUR BRUSH PROBLEMS!

...and SILVER GRAPHALLOY brush & slip-ring assemblies

Model 399 GRAPHALLOY BRUSH and SLIP-RING ASSEMBLY

PEDESTAL-
MOUNTED



Bolt Slot Distances CL to CL.				Overall Length**
Model	Rings	Width	Length	
399-4	4	4 1/2	7 3/4	13 1/4
399-6	6	4 1/2	8 1/2	14
399-10	10	4 1/2	10	15 1/2
399-14	14	4 1/2	11 1/2	17

Width 6 1/2" — Height 6 1/2"
Shaft CL above base 3 1/4" **To outer end of coupling.

Applications: from strain gage or thermo-
couple up to 5 amperes, 125 volts, 250°F.
Speeds to 5,000 RPM.

Three Silver-GRAPHALLOY Brushes per solid
coin silver slip ring.

Extraneous noise level extremely low.

Rugged in design and construction.

Readily connected mechanically and

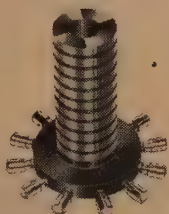
electrically.

Complete coupling provided for 1 5/8" shaft.

More rings and higher speeds available upon
application.

Model 319 CYLINDRICAL SLIP-RING ASSEMBLY

Solid Coin Silver Rings



Model	Rings	Length
319-4	4	2 9/16
319-6	6	3 9/16
319-10	10	4 9/16
319-14	14	6 9/16

Slip ring O.D. 1 5/8". Terminal O.D. 4".

Assembly I.D.: .814"/.813"

Range: Same as for Model 399

Model 409 FLAT SLIP-RING ASSEMBLY

Solid Coin Silver Rings



Model	Rings	Overall O.D. — "A"
409-2	2	5 1/2
409-4	4	7
409-6	6	8 1/2
409-10	10	11 1/2

Hub O.D. 2"; I.D. 1.573"/1.571"; Length 1 5/8"

To 5 amperes, 125 volts.

More rings available upon application.

Model 399C GRAPHALLOY BRUSH and SLIP-RING ASSEMBLY

FLANGE-
MOUNTED



Model	Rings	Bolt Circle for		Overall Length*
		Mounting Flange	Driving Coupling	
399C-4	4	7 1/8	7	13
399C-6	6	7 1/8	7	13 3/4
399C-10	10	7 1/8	7	15 1/4
399C-14	14	7 1/8	7	16 3/4

Case diameter: 6 1/2"

*From hemispherical end of case to center of flange
coupling.

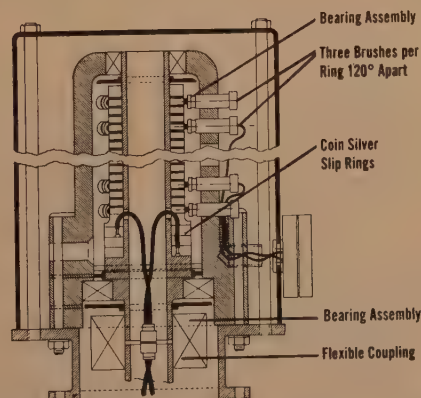
Details same as for Model 399 except as
follows:

Rotor is attached by flange at end of shaft to
customer's half of flange coupling.

Stator is attached, by flange ring thereon, to
fixed mounting plate supplied by customer;
or, if flange mounting is not feasible, flange
ring is omitted and stator is restrained from
rotation by shock cords attached to lugs on
case.

Convenient multi-contact detachable connect-
or for incoming circuits, and another such
connector for outgoing circuits.

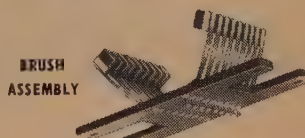
Special brush and slip-ring assemblies to meet special requirements



GRAPHALLOY BRUSHES

are used on
such equipment as...

- SERVO SYSTEMS
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- RADAR
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- WAVE GUIDES
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- TRANSDUCERS
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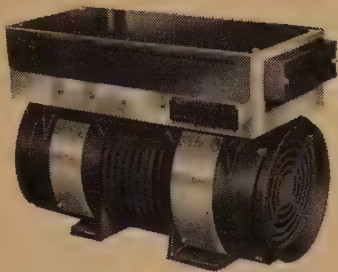


*"We Specialize in
Special Designs"*

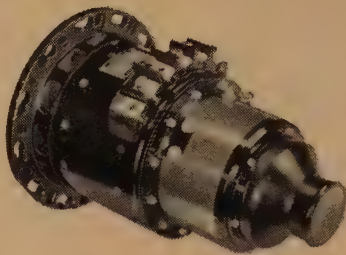
OUR ENGINEERING DEPARTMENT WILL
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SPECIAL COMPONENTS AND ASSEMBLIES

GRAPHITE METALLIZING CORPORATION

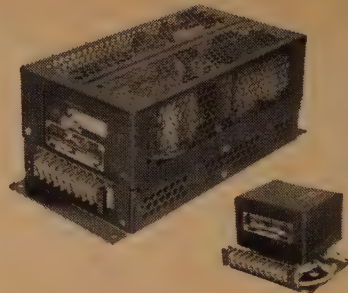
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**High-altitude and Missile
INVERTERS**



**High-temperature
AC GENERATORS**



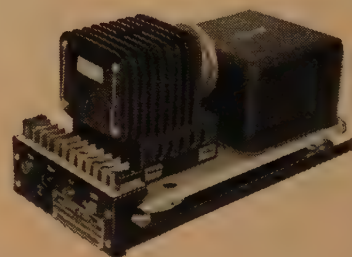
**AC Voltage Regulators
(Magnetic Amplifier Type)
and
SYSTEM COMPONENTS**



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featuring
HARD GLASS TYPES**



**High-temperature
DC GENERATORS**



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and
CONTROL PANELS**

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There's no questioning the quality of special-purpose electron tubes or electrical power equipment when it's made by Bendix Red Bank. The proof is in acceptance—almost universal acceptance. Twenty-four hours a day, in countries around the world, equipment like that shown above is proving that skillful design and expert engineering (plus an almost unmatched quality control system) can build an international reputation for dependable per-

formance. If you can use quality like this, call on us for recommendations. Write today for brochure detailing our engineering, production, and service facilities. RED BANK DIVISION, BENDIX AVIATION CORPORATION, EATONTOWN, NEW JERSEY.

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Supermarket

for

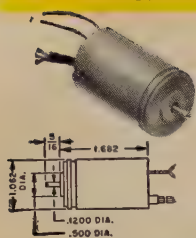
precision components



- ROTATING COMPONENTS
- RADAR ANTENNA DEVICES
- GYROS
- COMPONENT PACKAGING

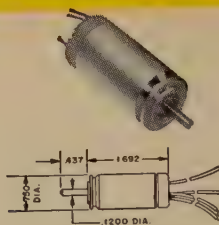
ECLIPSE-PIONEER DIVISION, BENDIX AVIATION CORPORATION
TETERBORO, N.J.

AY-190 SERIES, SIZE 11 FRAME — AUTOSYN® SYNCHROS — AY-300 SERIES, SIZE 8 FRAME



Function	Corrosion Resistant
Transmitter	AY-190-A1
Control Transformer	AY-191-A1
Resolver	AY-192-A1
Differential	AY-193-A1
Receiver	AY-194-A1*

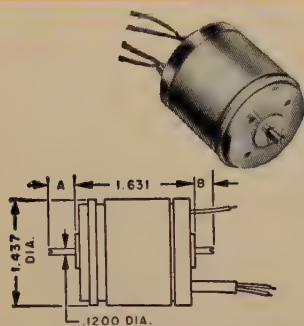
* Receiver not normally furnished in corrosion resistant construction.



Function	Corrosion Resistant
Receiver	AY-300-2-A1*
Control Transformer	AY-300-25-A1
Transmitter	AY-300-26-A1
Control Transformer (HI-Z)	AY-300-38-A1
Resolver	AY-320-25-A1
Differential	AY-330-25-A1

* Receiver not normally furnished in corrosion resistant construction

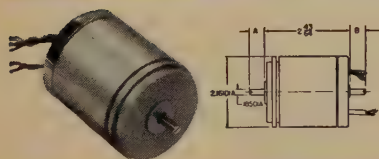
AY-200 SERIES AUTOSYN SYNCHROS — SIZE 15 FRAME



TYPICAL No.	Dimension	
	A	B
AY-200-1	1/4	0
AY-201-1	1/2	0
AY-202-1	7/16	3/8

FUNCTION	STANDARD CONSTRUCTION	CORROSION RESISTANT	HIGH TEMPERATURE
Multi-Power Transmitter	AY-20 □S-1-B	AY-20 □S-44-B	AY-20 □S-31-B
Receiver	AY-20 □S-2-B		
Control Transformer	AY-20 □S-3-B	AY-20 □S-25-B	
Single-Power Transmitter	AY-20 □S-4-B	AY-20 □S-26-B	
Control Transformer (HI-Z)	AY-20 □S-5-B	AY-20 □S-38-B	AY-21 □S-48-B
Linear		AY-21 □S-42-B	
Resolver (HI-Z)	AY-22 □S-5-B	AY-22 □S-38-B	
Resolver	AY-22 □S-27-B	AY-22 □S-25-B	
Differential (Servo Application)	AY-23 □S-3-B	AY-23 □S-25-B	AY-27 □S-46-B
Differential (Synchronous Application)	AY-23 □S-4-B		
Resolver (Omni Application)	AY-24 □S-5-B		
Resolver (HI-Frequency)	AY-25 □S-24-B	AY-25 □S-39-B	
Resolver, Control Transformer	AY-26 □S-3-B		
Variable Transformer	AY-27 □S-43-B	AY-27 □S-46-B	

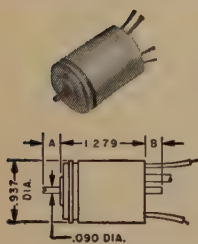
AY-400 SERIES AUTOSYN SYNCHROS — SIZE 22 FRAME



TYPE No.	Dimension	
	A	B
AY-401-1	1/2	0
AY-402-1	1/2	1/2

FUNCTION	STANDARD CONSTRUCTION	CORROSION RESISTANT
Transmitter	AY-40 □-1-A	AY-40 □-2-A
Differential	AY-43 □-1-A	AY-43 □-2-A

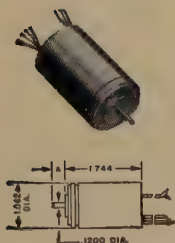
AY-500 SERIES "PYGMY" AUTOSYNS — SIZE 10 FRAME



TYPICAL No.	Dimension	
	A	B
AY-500-2	1/4	0
AY-502-2	1/4	1/4
AY-503-2	3/8	0

FUNCTION	STANDARD CONSTRUCTION	CORROSION RESISTANT	HIGH TEMPERATURE
Receiver	AY-50 □-2-A1	AY-50 □-25-A1	AY-50 □-8-A1
Control Transformer	AY-50 □-3-A1	AY-50 □-26-A1	
Transmitter	AY-50 □-4-A1	AY-50 □-38-A1	
Control Transformer (HI-Z)	AY-50 □-5-A1		
Linear	AY-51 □-10-A1		AY-52 □-25-A1
Resolver	AY-52 □-3-A1	AY-52 □-25-A1	
Differential	AY-53 □-3-A1	AY-53 □-25-A1	
Resolver (HI-Z)	AY-54 □-5-A1	AY-54 □-38-A1	
Resolver (HI-Frequency)	AY-55 □-24-A1	AY-55 □-39-A1	

AY-600 SERIES AUTOSYN SYNCHROS — SIZE 11 FRAME



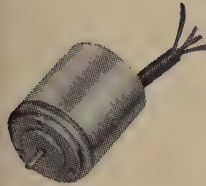
TYPICAL No.	A INCHES
AY-600-1	5/16
AY-601-1	1/2

FUNCTION	STANDARD CONSTRUCTION	CORROSION RESISTANT	HIGH TEMP. AND CORROSION RESISTANT
Multi-Power Transmitter	AY-60 □-1-A1	AY-60 □-6-A1	AY-60 □-12-A1
Control Transformer	AY-60 □-3-A1	AY-60 □-5-A1	
Control Transformer (Med. Z)		AY-60 □-11-A1	
Receiver	AY-60 □-10-A1		AY-63 □-12-A1
Single-Power Transmitter	AY-60 □-8-A1		
Resolver	AY-62 □-3-A1	AY-62 □-5-A1	
Differential		AY-63 □-5-A1	

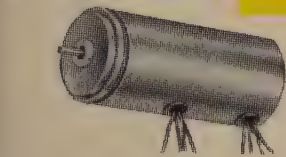
Units listed have loose leads. Can also be furnished with terminal boards.

LOW INERTIA SERVO MOTORS

TYPE No.	RATED VOLTAGE		Max. Power Input Total (Watts)	No Load Speed (RPM)	Stall Torque (Oz. in.)	Torque to Inertia Ratio (Radians-sec. ²)	Frame Size	REMARKS
	Phase 1	Phase 2						
CK-1018-7-A1	18	18	5.0	10,000	0.13	18,400	10	Tapered Shaft 125°C Ambient Temp. Corrosion Resistant, Tapered Shaft MK 7 Mod. 1
CK-1018-16-A1	26	26	6.0	10,000	0.3	40,000	10	
CK-1025-13-A1	115	115/57.5	12.0	4,800	1.45	31,000	15	
CK-1027-14-B1	115	115/57.5	7.0	6,200	0.60	41,500	11	Corrosion Resistant Pinion on Tapered Shaft Drag Cup
CK-1027-15-B1	115	180/90	7.2	6,200	0.60	41,500	11	
CK-1031-18-A1	26	55	9.0	6,175	0.35	10,000	10	
CK-1038-17-A1	26	50	4.75	5,500	0.39	14,500	15	Tapered Shaft 125°C Ambient Temp. Corrosion Resistant, Splined Shaft
CK-1041-19-A1	26	65	6.6	3,600	0.7	3,500	15	
CK-1043-17-A1	26	50	4.75	5,500	0.39	14,500	15	
CK-1045-16-A1	26	26	6.0	10,000	0.3	40,000	10	Splined Shaft Splined Shaft Splined Shaft
CK-1048-24-A1	18	18	3.0	6,300	0.15	21,300	8	
CK-1048-29-A1	26	26	4.5	6,300	0.20	28,300	8	
CK-1049-25-A1	26	26	6.5	5,800	0.35	19,000	8	Corrosion Resistant Corrosion Resistant
CK-2006-5-A1	115	115	30.0	6,600	3.0	5,700	20	
CK-2006-13-A1	115	115	26.0	6,000	2.5	41,500	20	
CK-2011-13-A1	115	115	26.0	6,000	2.5	41,500	20	
CK-3004-4-A1	115	230	70.0	3,700	14.5	5,800	28	



RATE AND SERVO MOTOR GENERATORS



TYPE No.	RATED VOLTAGE		Max. Power Input Total (Watts)	No Load Speed (RPM)	Stall Torque (Oz. in.)	Torque to Inertia Ratio (Radians-sec. ²)	Gen. Excit. (Volts)	Generator Output (Volts)	Frame Size	REMARKS
	Phase 1	Phase 2								
FV-10 □-5-A1	26	26	7.0	10,000	0.28	20,000	18	0.3/1000	10	Corrosion Resistant High Temperature Corrosion Resistant Includes Permanent Magnet Generator for Speed Measurement
FV-103-6-A1	115	115/57.5	7.0	6,200	0.60	25,500	115	0.5/1000	11	
FV-104-7-A1	26	26	9.7	6,000	0.50	22,000	26	0.5/1000	11	
FV-109-10-A1	26	26	7.0	10,000	0.28	14,000	18	0.3/1000	10	Corrosion Resistant Corrosion Resistant Corrosion Resistant
FV-110-9-A1	26	52/26	7.0	10,000	0.28	20,000	26	0.5/1000	10	
FV-110-12-A1	33	52	7.0	10,000	0.28	20,000	26	0.5/1000	10	
FV-112-11-A1	18	18	3.0	6,300	0.15	13,000	18	0.25/1000	8	Corrosion Resistant Corrosion Resistant Corrosion Resistant
FV-2001-4-A1	115	115	23.0	7,200	2.5	69,000	18	0.3/1000	20	
FV-2005-5-A1	115	115/57	26.0	6,000	2.5	39,000	115	0.5/1000	20	
FV-2007-6-A1	115	115	25.0	7,000	2.8	5,400	18	0.3/1000	20	Corrosion Resistant
FV-3005-5-A1	115	230/115	70.0	3,700	14.5	4,200	115	0.5/1000	28	

RATE AND SERVO MOTORS — CENTER TAPPED CONTROL WINDINGS



TYPE NUMBER	FRAME SIZE	CONT. PHASE VOLT.	CENTER TAPPED CONTROL PHASE TOTAL			POWER CONT. PHASE	FIXED PHASE VOLT.	FIXED PHASE			POWER FIXED PHASE	EFFECTIVE RESISTANT CONTROL PHASE	TORQUE
			Z	R	X			Z	R	X			
1265271	8	55	750	597	450	3.19	26	170	142	93	3.25	960	.3
1265272	10	52	584	419	405	3.3	26	146	105	101	3.3	830	.3
1265273	11	40	263	151	215	3.5	115	2175	1250	1780	3.5	460	.63
1269605	8	26	290	240	158	2.2	26	290	240	158	2.2	310	.2
1269606	10	26	290	240	158	2.2	26	290	240	158	2.2	310	.2
FV100-12-A1	10	33	241	175	167	3.3	26	146	105	101	3.3	335	.3
1269702	8	52	680	568	372	3.25	26	170	142	93	3.25	830	.3

ORDNANCE AND NAVY TYPE AUTOSYN SYNCHROS

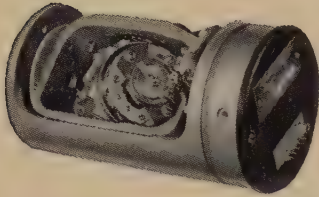
TYPE No.		FUNCTION		TYPE No.		FUNCTION
ECLIPSE-PIONEER	MILITARY			ECLIPSE-PIONEER	MILITARY	
AY-1601-5	15TR4A	Torque Receiver		2328-1	3F	Receiver
AY-2400-9	23CX6	Control Transmitter		2330-1	1F	Receiver
AY-2400-10	23CT6	Control Transformer		2340-1	5HG	Transmitter
AY-2400-12	23TX6	Control Transmitter		2341-1	5F	Receiver
AY-2400-13	23TR6	Torque Receiver		2343-1	1D	Differential Receiver
AY-2401-10	23CT6A	Control Transformer		2344-1	6HG	Transmitter
AY-3200-9	31TX4A	Torque Transmitter		2345-1	3D	Differential Receiver
2323-1	1HCT	Control Transformer		2346-1	5SCT	Control Transformer
2324-1	1HG	Transmitter		2352-1	5HDG	Differential Transmitter
2325-1	1HDG	Differential Transmitter		2353-1	5HCT	Control Transformer
2326-1	3HCT	Control Transformer		2369-1	6HDG	Differential Transmitter
2327-1	3HG	Torque Transmitter				

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PRECISION GYROS FOR ALL APPLICATIONS

Eclipse-Pioneer . . . the nation's foremost supplier of panel indicator gyros . . . offers a complete line of gyros to meet all applications. This group includes all the basic vertical, rate, free, and directional gyro types used as reference components in complete navigation, radar, compass, autopilot, and guidance systems.

VERTICAL GYRO TRANSMITTERS



Type Number 14110-1-A



Type Number 14104-1-B



Type Number 14126-1-A

Size: 4 3/4" diameter, 8 1/32" in length

Weight: Approx. 6 lbs. without shockmount

Power requirements: Gyro Motor and Erection System — 115 volts, 400 cycles, 3 phase
Autosyn — 26 volts, 400 cycles, 1 phase

FEATURES: includes quick erecting mechanism which makes the remote unit ready for operation within 3 minutes. • Two ball erection system • Non-tumbling stops • Inclined axis (1 degree) to minimize turn error.

Power requirement 115 volts, single phase, 400 cps
Starting 19 watts, 0.9 P.F.
Running 13 watts, 0.85 P.F.
Gyro speed 22,000 rpm
Gyro moment 600 gram cm²

Autosyn excitation 26 volts, 400 cps
Erection rate (normal) 3°/minute
Weight 2 3/4 lbs.
Size 3 1/8" diameter x 5 13/16" long

Diameter — 6 1/8" Weight — 6 1/4 lbs. Height — 6 3/4"

Designed for use as a remote vertical reference where vertical stabilization is required. The instrument is essentially an electrically driven, vertical-seeking gyro with separate Autosyn transmitter pick-offs on the pitch and bank axes. Provisions are incorporated to reduce bank error encountered in turns.

- Operating temperature range: —55°C to +70°C.
- Operational limits: 360° in roll and pitch with controlled tumbling of the pitch axis at near 90°.
- Accuracy: The erection system maintains the gyro in a vertical position to within 1/4° of vertical position with respect to the earth.
- Caging: From any position at full rotor speed in less than 45 seconds.

This Vertical Gyro Transmitter provides roll and pitch displacement signals which will operate remote indicating devices or which can be used wherever attitude information could be applied. It consists of an electrically driven, torquer erected, vertical-seeking gyro enclosed in a hermetically sealed case with separate Autosyn transmitter pick-offs on the roll and pitch axes.

Provisions have been made so that the pitch and roll erection systems can be cut out by external switches.

An outstanding feature of this instrument is the use of the newly developed Eclipse-Pioneer Electrolytic Switch which provides precise erection and has long serviceability. Besides being rugged, of simple design, and easily serviceable, the transmitter also features a quick erection to true vertical instead of vertical in relation to the instrument case; a sensitive measuring vertical deflection system with an accuracy of better than 1/4°; and an improved gimbal construction resulting in greater operational stability. This gyro is completely self-contained and requires no erection amplifier.

VERTICAL GYRO—Non pendulous

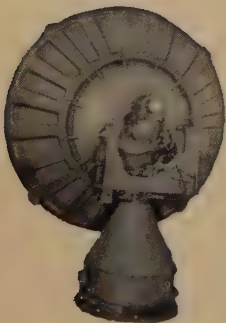
Momentum: 4,000,000 gm cm²/sec

Freedom: 360° in roll. Controlled tumbling near ± 82° in pitch with stops set to provide minimum loop error at 10°/sec rate of loop

RADAR ANTENNA DEVICES

SPECIFICATIONS

Weight 700 lbs.
Data accuracy 0.5 Mil.
Slewing rates
(in azimuth and elevation) 12 rpm.
Operating temperature range —54°C to +66°C
Elevation and Azimuth Two-speed 60 cps synchro data systems are used, having ratios of 1:1 and 16:1
Servo drives 3/4 HP motors (DC) for use with an Amplidyne servo system
Wind loading 50 mph (full operating performance)
100 mph (no structural damage)



GROUND ANTENNA
PEDESTAL
TYPE NUMBER 40101-1-A

SPECIFICATIONS

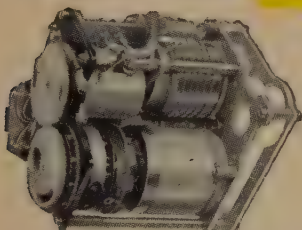
Standard frequency range 9345 to 9405 mc/s. This permits beacon operation at 9310 mc/s
Optional frequency range 9215 to 9275 mc/s
Operation Up to 60KW peak with a 0.001 duty cycle
Beam width 4° maximum in E and H planes
Side lobes At least 18 db below main lobe peak
Polarization Horizontal
Weight 24 lbs. (approximate)
Operating temperature range* —40°C to +55°C
Storage temperature range* —65°C to +55°C
Humidity 10% to 95%

*These temperature ranges can be extended for specific applications.

AIRBORNE WEATHER
RADAR ANTENNA
TYPE NUMBER 40023-□-A



COMPONENT PACKAGING



Servo Follow-Up Package External Slip Ring Autosyn



In addition to supplying catalog component items such as — synchros, motors, gyros, etc. — Eclipse-Pioneer is in an excellent position to offer a premium in the way of customer service and accommodation on component packaging.

We may have already solved a problem similar to yours, thus enabling our system specialists to adapt from our extensive line, existing production packages to meet your systems requirements.

Should your problem turn out to be entirely new, we can — and will — design, develop, and produce a component or complete system to solve your specific problem.

No package is too small or too large for Eclipse-Pioneer, and may be as simple as an Autosyn mounting clamp or be more complex such as a complete servo follow-up sub-assembly from a production computer.

ECLIPSE-PIONEER DIVISION

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AVIATION CORPORATION

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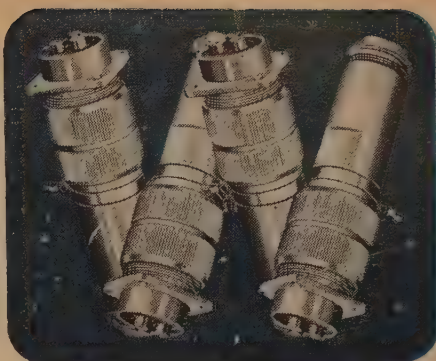
We will furnish, on request, samples, specific data, and recommendations. Let us give you complete details. There is no obligation.



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BIWAX CORPORATION

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For long life

*under extreme conditions of
shock, vibration, corrosion,
humidity and temperature*



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ELECTRICAL CONNECTOR

Intended for use with jacketed cable and not requiring ground return through mating surfaces, this connector incorporates sealing gaskets at all mating joints.

W-Type Bendix* Connectors also incorporate standard Scinflex resilient inserts in established AN contact arrangements. Shell components are thick sectioned high-grade aluminum for maximum strength. All aluminum surfaces are grey anodized for protection against corrosion.

It will pay you to remember that for the really tough jobs where ordinary electrical connectors just won't do, be sure to specify the W-Type Connector.

Complete specifications and details on request.

*TRADEMARK



SCINTILLA DIVISION of
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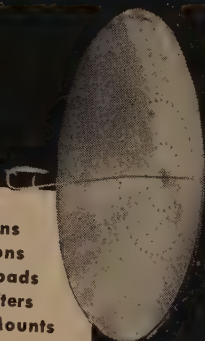
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ANTENNA & MICROWAVE CORP.
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NEW ELECTRA SEALED SWITCH

Write for details on new Snap Action W-Blade Sealed Switch. Completely new water-proof, dust-proof switch at a cost comparable to open type switches. Write today for specifications and prices.

Electra

If increased reliability is your ultimate goal, begin with Electra deposited carbon resistors. Get precision, stability, small physical size, plus a full range of resistance values. Get the benefit, too, of an unsurpassed degree of manufacturing skill . . . skill resulting from years of pioneer work and production leadership in this field of electronics. Check the wide selection of available sizes, then write today for full details.



Electra Part No.	Mil. Style	Wattage	Max. Rated Voltage	Resistance Range	Length A	Dia. B	Leads Dia.
DC1/8	none	.125	250	4 ohms 250K	9/32"	5/64"	.016"
DC1/4	RN-10	.25	300	5 ohms 1 meg	17/32"	3/32"	.026"
DC1/4A	none	.25	300	5 ohms 800K	13/32"	3/32"	.026"
DC1/2	none	.5	500	6 ohms 5 megs	13/16"	11/64"	.032"
DC1/2A	RN-20	.5	350	3 ohms 2.2 megs	19/32"	11/64"	.032"
DC1/2B	none	.5	500	3 ohms 5 megs	11/16"	15/64"	.032"
DC1/2C	RN-15	.5	350	2 ohms 2 megs	15/32"	11/64"	.032"
DC1	RN-25	1.0	500	3 ohms 10 megs	15/16"	9/32"	.032"
DC2	RN-30	2.0	1000	10 ohms 50 megs	2 1/16"	9/32"	.032"

Special coatings, sleeves, lead lengths, etc., available. Standard lead length (C) 1 1/2".

Electra Part No.	Mil. Style	Wattage	Maximum Rated Voltage	Resistance Range	Length A	Dia. B	Leads Dia.
DCM 1/8	RN-60	1/8	250 Volts	10 ohms 1 meg	13/32"	.136"	.026"
DCM 1/4	RN-65	1/4	300 Volts	10 ohms 2.5 megs	19/32"	.219"	.026"
DCM 1/2	RN-70	1/2	350 Volts	10 ohms 2.5 megs	3/4"	.25"	.032"
DCM 1	RN-75	1	500 Volts	10 ohms 10 megs	1 1/8"	.395"	.032"
DCM 2	RN-80	2	750 Volts	30 ohms 40 megs	2 1/4"	.395"	.032"

Electra Part No.	Mil. Style	Wattage	Maximum Rated Voltage	Resistance Range	Length A	Dia. B	Leads Dia.
HC-1		1/4	250	10 ohms—250K	15/32"	5/32"	.016"
HC-2		1/3	300	10 ohms—1 meg.	3/4"	3/16"	.026"
HC-3	RN-70	1/2	350	10 ohms—2 megs	11/16"	1/4"	.032"
HC-4		1	500	10 ohms—5 megs	7/8"	5/16"	.032"
HC-5		1	500	10 ohms—5 megs	1"	9/32"	.032"
HC-6	RN-75	1	500	10 ohms—10 megs	1-3/32"	3/8"	.032"
HC-7	RN-80	2	1000	30 ohms—50 megs	2-1/4"	3/8"	.032"
HC-8	RN-65	1/4	300	10 ohms—2 megs	5/8"	1/4"	.032"
HC-9	RN-70	1/2	350	10 ohms—1 meg	3/4"	1/4"	.032"
HC-10	RN-60	1/8	250	10 ohms—1 meg	7/16"	5/32"	.026"
HC-40		1/8	150	10 ohms—350K	9/32"	5/32"	.016"

All Electra resistors made to meet or exceed Mil-R-10509D. Lead length C Standard and Molded resistor is 1 1/2". For Hermetically Sealed resistor it is 1 3/4".

ELECTRA Ceramic Disc Capacitors

Temperature Compensating • A. C. Line Filters
General Purpose • Extended T. C. • General By-Pass



AVAILABLE IN NINE PHYSICAL SIZES—from 1/4" to 15/16" diameter

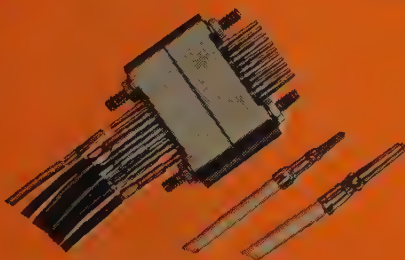
. . . Electra now offers you a complete line of Ceramic Disc Capacitors. These capacitors offer you the utmost in high stability, low power factor, High Q, low drift, high insulation and low inductance. You get, too, precision, product uniformity, small physical size, plus a wide range of capacitance values and low cost. For full details write today for our new Catalog Bulletin No. 101. In addition to the types listed above, high voltage disc capacitors and other special types also are available on request.

ELECTRA MANUFACTURING COMPANY 4051 Broadway Westport 1-6864 Kansas City, Mo.

IT'S ROUND-UP TIME AT AMP

... products for your **ELECTRONICS**
and **AVIONICS** applications

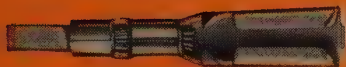
TAPER PINS



The A-MP Miniature Taper Pin Receptacle eliminates tedious and costly operations of soldering leads to miniature connectors. This solderless, quick-disconnect terminal is applied to the lead by means of A-MP Automachine and A-MP Certi-Crimp Tooling... then capped over other type connectors, modified to receive the A-MP 37 Series Miniature Taper Pin Receptacle.

Other A-MP Taper Pins are available (Series 53 and 88) for wire sizes 24 - 12 AWG and a wide range of insulation sizes. Insulation piercing Taper Pins are available for small stranded wires and popular size tinsel cords.

TAPER TAB RECEPTACLES



A-MP Taper Tab Receptacles are a recent development for flat tabs employing the taper key principle. They are available for wire sizes 24 - 18 AWG, in gold, silver and tin-plated finishes.

The tapered section of these receptacles is standardized to fit the same size tapered tab. Insulation piercing Taper Tab Receptacles are available for small wire sizes and tinsel cords.

CONNECTORS FOR PRINTED CIRCUITS



The AMP-Edge Connector is design-engineered with positive wiping contact and frictional grippage. This connector gives you: greater flexibility... its size does not limit the size of your completed unit; design versatility... easily applied, in any arrangement, to any section of the perimeter; costs reductions... in applying connector to the wire and to the printed circuit.

The AMPin Connector... gets leads to the printed circuit in one assembly operation... eliminates your investment in expensive automation equipment... no loose leads during the solder-dip process... construction promotes good capillary flow of solder during dipping process... can be applied to solid or stranded wires... is self-retaining and self-aligning.

THE SHIELDED WIRE TEAM



The A-MP Shielded Wire Splice joins sections of shielded wire so that the inner conductor and outer shield are firmly spliced and remain effectively insulated from each other. Features include: rectangular inspection window, in center, permits easy inspection to determine proper placement of ends of inner conductor; inspection ports, at each end, to check proper depth of braid enclosed after crimping; and overhang of outer sleeve projects beyond inner elements and grips braid for anti-vibration support.

The A-MP Termashield Shielded Wire Ferrule are of one-piece construction, is slightly thicker than the wires joined, and is the ideal one-step splice for ground tap accommodation.

This A-MP Shielded Wire Team is color-coded for easy identification of leads and connectors and provides a simple one-step operation that reduces assembly time and costs.

Further information on these products is available on request.

AMP INCORPORATED

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DIRECT-DISPLAY CATHODE RAY STORAGE TUBES BY HUGHES



Hughes **TONOTRON***

direct-display storage tube

FEATURES: Half-tone presentation . . . excellent grey scale . . . controllable decay rate . . . compact design.

APPLICATIONS: Closed circuit TV . . . instrumentation . . . PPI . . . narrow band, slow scan TV.

SPECIFICATIONS: 1,000 foot-lamberts brightness at 10 kv . . . electrostatic focusing . . . magnetic deflection . . . 60 lines per inch resolution . . . writing speed of 150,000 inches per second.



Hughes **TYPOTRON**[®]

character-display storage tube

FEATURES: High brightness . . . permanent display until intentionally erased . . . rapid display of printed data . . . 63-character matrix.

APPLICATIONS: Digital computers . . . Teletype reception . . . wherever printed data must be displayed rapidly for use by human operator.

SPECIFICATIONS: Writes up to 25,000 characters per second . . . permanent storage until erased . . . almost instantaneous erasure . . . electrostatic focusing and deflection.



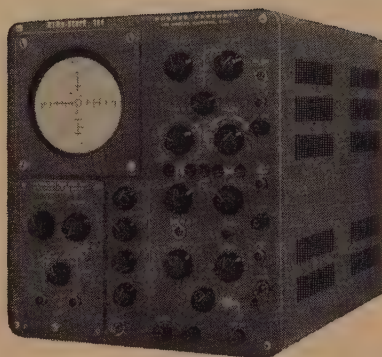
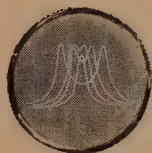
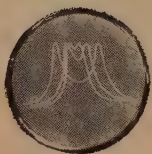
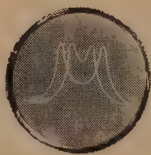
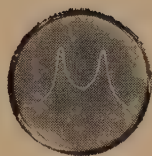
Hughes **MEMOTRON**[®]

direct-display storage tube

FEATURES: Bright display . . . constant and uniform intensity of presentation . . . no perceptible transient decay . . . simplifies photography.

APPLICATIONS: Transient analysis . . . spectrum analysis . . . direct comparison of wave forms.

SPECIFICATIONS: 100,000 inches per second writing speed . . . stores traces until intentionally erased . . . erasure triggered by push-button or programmed voltage . . . electrostatic focusing and deflection.



New Hughes 104 MEMO-SCOPE* oscilloscope

FEATURES: Captures and retains any number of traces indefinitely . . . eliminates waste of time and film for unnecessary photography.

APPLICATIONS: Presentation of tube or transistor characteristics without need of repetition . . . displaying frequency response with a single scan through the desired spectrum . . . investigation of transient behavior for power supply regulation . . . transients encountered in ballistics or missile firing . . . to monitor phase relationships.

SPECIFICATIONS: 5-inch diameter MEMOTRON[®] direct-display storage tube . . . optional plug-in preamplifiers for increased flexibility . . . almost instantaneous erasure by push-button or programmed voltage.

For additional information, write to

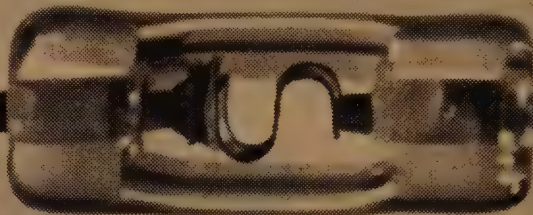
HUGHES PRODUCTS • ELECTRON TUBES
International Airport Station, Los Angeles 45, California

HUGHES PRODUCTS

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Creating a new world with **ELECTRONICS**

*Trademark of Hughes Aircraft Company



HUGHES SEMICONDUCTORS

DIODES • TRANSISTORS • RECTIFIERS

At Hughes, reliability is the standard upon which every device is based, from research and development through all phases of production. Its significance to you can only be determined if you specify Hughes, if you actually design our units into your equipment. Then you will *know* that Hughes reliability means trouble-free operation under even the most severe operating conditions.

First of all, for reliability!

GERMANIUM POINT-CONTACT DIODES

STANDARD—A large series comprising RETMA, JAN and special types, all having Hughes' famous glass package for complete protection from contaminant penetration. For applications in computers, radar, communications equipment, control equipment.

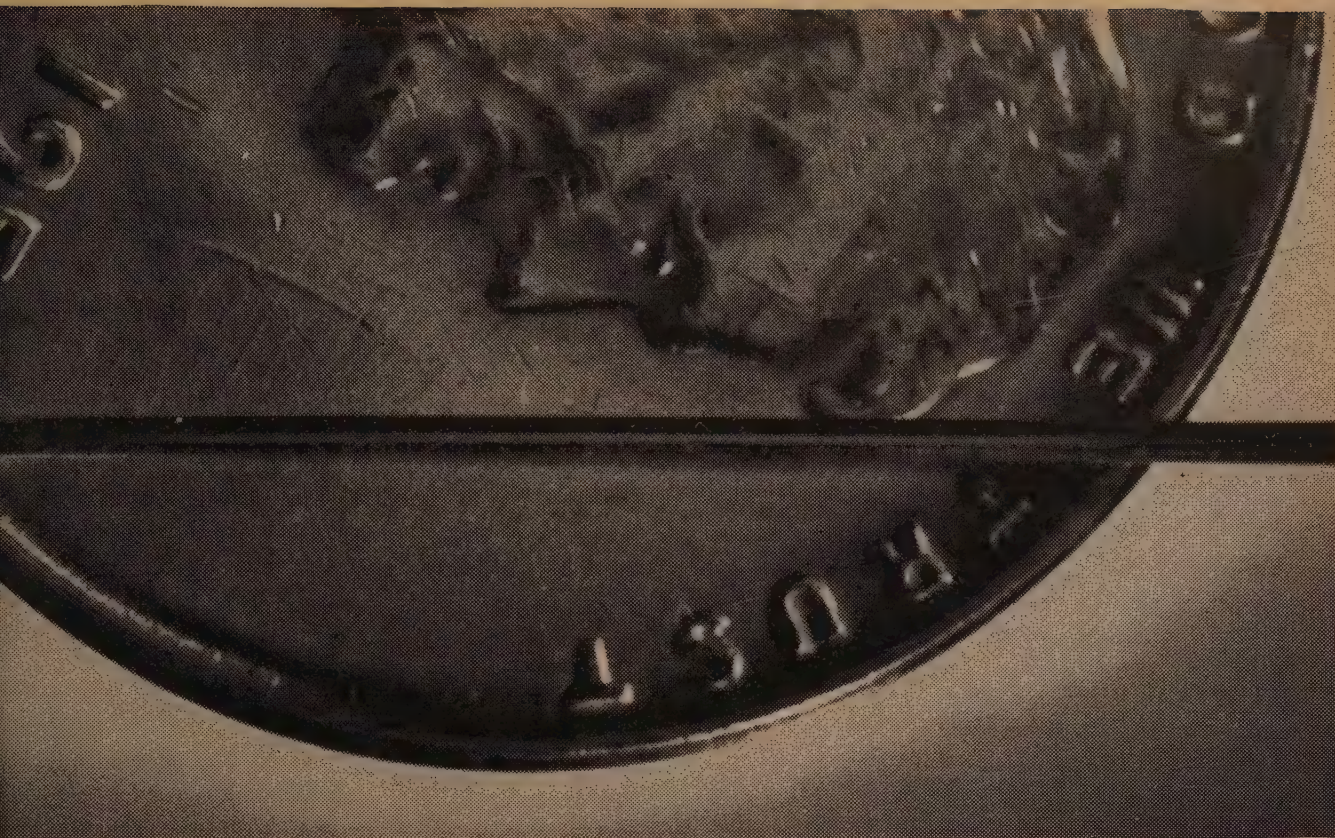
Peak Inverse Voltage	50-190V	Min. Forward Current @ +IV	3-200mA
Max. Inverse Working Voltage	40-150V	Max. Inverse Current @ -50V	.050-.850mA

QUICK RECOVERY, HIGH CONDUCTANCE—Germanium diodes with all the features of the standard series plus quick recovery and high conductance together.

Peak Inverse Voltage	50-130V	Min. Forward Current @ +IV	20-150mA
Max. Inverse Working Voltage	40-100V	Max. Inverse Current @ -50V	.050-.500mA
Recovery (IBM "F" test)		100K Ω in 1 μ sec.	

For some time now the Hughes line has covered an extensive variety of applications in the electronics industry. And it is still growing, with many new products "just around the corner." Watch for their introduction, but meanwhile, for details of those already here, please write:

SEMICONDUCTOR DIVISION • HUGHES PRODUCTS
International Airport Station, Los Angeles 45, California



SILICON JUNCTION DIODES

STANDARD—High-temperature units (200°C) featuring excellent forward conductance, extremely high back resistance, and extremely low saturation current throughout wide temperature ranges.

Saturation Voltage 30-200V
Forward Current @ IV 1-40mA

Back Current @ 25°C as low as .025 μ A (-175V)
Back Current @ 150°C as low as .005 mA (-175V)

QUICK RECOVERY—A high-speed, high-voltage, high-temperature series for high-frequency or fast-switching circuits.

WIV @ 0.1mA 30-200V
Forward Voltage @ 4mA <1.5V

Recovery (modified IBM "Y" test) 400K Ω (min.) in 1 μ sec.
Reverse Current @ 25°C as low as 1 μ A (-175V)
Reverse Current @ 100°C as low as 100 μ A (-175V)

HIGH CONDUCTANCE—Reliable devices ideal for miniaturized circuits requiring high back resistance, high voltage, high temperature.

Breakdown Voltage 200-400V
Reverse Current as low as 0.1 μ A (350V)

Forward Current Rating (Ave. Rect.) up to 200mA
Forward Voltage @ 200mA <1V

SILICON POWER RECTIFIERS

Exceptionally efficient units for use in electronic power supplies and miniaturized rectifier circuitry in general.

Max. AC Input Voltage 140-275V RMS
Max. Reverse DC Working Voltage 175-375V

Max. Ave. Rect. Fwd. Current 200mA
Power Dissipation @ 25°C 200mW

GERMANIUM NPN TRANSISTORS

A medium-power series of alloyed-junction devices in a hermetically sealed axial package.

Frequency Cut-off (f_c) 0.5-2.0 mc/s min.
Output Admittance (h_{22})* 100-400 mhos max. $\times 10^{-8}$
Current Amplification ($1+h_{21}$)* 25-150 max. $\times 10^{-3}$

Maximum Collector Voltage (V_M) 10-40V
Collector Capacitance (C_c)** 20-40 μ f max. @ 10V
Collector Cut-Off Current (I_{co})† 10-30 μ A max.

* Measured with 5V Collector Voltage and 1mA Emitter Current

** Measured with 10V Collector Voltage

† Measured with 5V Collector Voltage

Creating a new world with **ELECTRONICS**

HUGHES PRODUCTS

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SEMICONDUCTORS

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ELECTRONICS BUYERS' GUIDE — June, 1957 — MID-MONTH

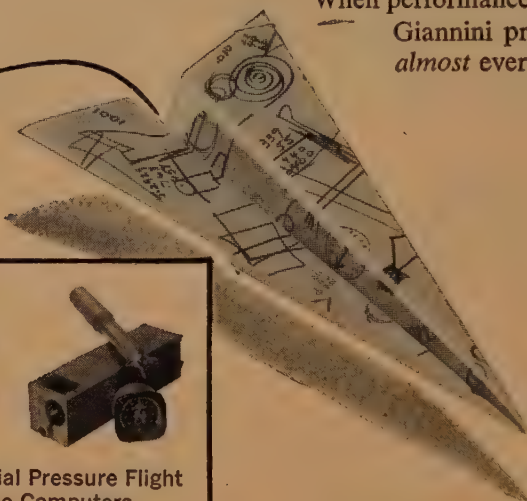
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Giannini Instruments and Controls for almost every airborne application

Whether single components or complex packaged systems, virtually all operational military aircraft (and civilian, too) use reliable Giannini precision-crafted instruments and controls.

When performance demands precision, specify Giannini products—they're available for almost every airborne application.



Accelerometers



Temperature Probes



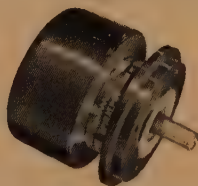
Differential Pressure Flight Angle Computers



Low Pressure Transducers



Gyro Instruments



Infinite Resolution Spiralpot Potentiometers



Aerodynamic Angle of Attack Transducers



High Pressure Transducers



Air Data Systems



Fluid Filled Potentiometers



INSTRUMENTS • CONTROLS

Engineering positions are open for career-minded young men at several locations—write for details.

REGIONAL SALES OFFICES: NEW YORK 1, N.Y., Empire State Bldg., CHickering 4-4700 • CHICAGO, ILL., 8 S. Michigan Ave., ANdover 3-5272
PASADENA, CALIF., 918 E. Green St., RYan 1-7152
FOREIGN SALES OFFICES: LONDON W. 8, ENGLAND, Giannini Limited, 31, Pembroke Gardens

G. M. GIANNINI & COMPANY, INC. • 918 EAST GREEN STREET • PASADENA, CALIF.



CONTINENTAL-DIAMOND FIBRE

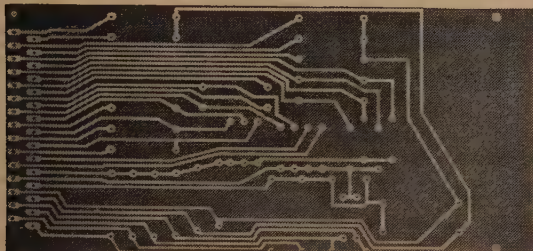
A SUBSIDIARY OF THE BUDD COMPANY

NEWARK 100, DELAWARE

HELPS YOU IMPROVE DESIGN
HELPS YOU SIMPLIFY PURCHASING
HELPS YOU SPEED PRODUCTION

METAL CLADS

For better printed circuits . . . lower costs . . . fewer rejects



HIGH BOND STRENGTH—C-D-F's special adhesive for metal-clad Dilecto bonds the copper foil to the plastic without affecting the laminate's superior electrical properties. Heat-resistance, dissipation factor, dielectric constant, dielectric strength, and insulation resistance of the Dilecto base remain unaffected. The closely-bonded foil can be etched cleanly and dipped in hot solder to 450°F. for ten

seconds with a guarantee of no blistering or separating. Metal-Clad Dilecto can be punched or machined either before or after etching.

EXCELLENT WORKABILITY—On all five Dilecto metal-clad grades, you can solder, punch, saw, and assemble components either by hand or automatically. Thanks to the inherently superior workability of the plastics laminate over that of ceramic-type materials, Dilecto can be dropped, jammed into tight chassis, and otherwise treated roughly on the assembly line and in service.

HIGH HEAT-RESISTANCE—Metal-Clad Dilecto Laminates are made of phenolic, epoxy, or Teflon* resin for various conditions of service and assembly, and have either cellulosic paper or woven glass-fiber base. All are ideally suited to printed-circuit applications in which heat-dissipation is a major problem. Continuous exposure to high ambient operating temperatures in enclosed electronic equipment has no significant effects on Dilecto's electrical and physical properties.

Write for new Metal-Clad folder MC-57.

TYPICAL PROPERTY VALUES

	Copper-Clad PHENOLIC (Grade XXXP-26)	Copper-Clad PHENOLIC (Grade XXXP-28)	Copper-Clad PHENOLIC 2350	Copper-Clad EPOXY (Grade GB-28E)	Copper-Clad TEFLON* (Grade GB-112T)
BOND STRENGTH—0.0014" foil (Lbs. reqd. to separate 1" width of foil from laminate)	6 to 10	6 to 10	6 to 10	8 to 12	4 to 8
MAXIMUM CONTINUOUS OPERATING TEMP. (Deg. C.)	120	120	120	150	200
DIELECTRIC STRENGTH (Maximum voltage per mil.)	800	800	700	650	700
INSULATION RESISTANCE (Megohms) 96 hrs. at 35° C. & 90% RH	50,000	30,000	200	25,000	Over 10 ⁴ megohms
DIELECTRIC CONSTANT 10 ⁴ Cycles	4.20	3.80	5.30	4.90	2.85
DISSIPATION FACTOR 10 ⁴ Cycles	0.026	0.027	0.047	0.020	0.0006
ARC-RESISTANCE (Seconds)	10	5	5	120	180
TENSILE STRENGTH (psi.)	16,000 x 13,000	12,000 x 10,000	19,000 x 16,000	48,000 x 44,000	23,000 x 21,000
FLEXURAL STRENGTH (psi.)	21,000 x 18,000	18,000 x 16,000	25,000 x 21,000	65,000 x 55,000	13,000 x 11,000
IZOD. IMPACT STRENGTH edgewise (ft. lbs. per inch of notch)	0.40 x 0.35	0.40 x 0.35	1.05 x 0.95	13.5 x 11.5	6.0 x 5.0
COMPRESSIVE STRENGTH flatwise (psi.)	28,000	22,000	36,000	62,000	20,000
BASE MATERIAL OF LAMINATE	Cotton rag paper	Cotton rag paper	Kraft paper	Medium-weave, medium-weight glass-fiber cloth	Fine-weave, medium-weight glass-fiber cloth
COLOR OF UNCLAD LAMINATE	Natural greenish	Natural Brown	Natural core with chocolate surfaces or solid black	Natural	Natural

All these standard grades are available with 0.0014", 0.0028", 0.0042", or thicker electrolytic or rolled copper foil on one or both surfaces. Other metal foils and other resin-and-base combinations can be supplied on special order.

duPont Trademark

MICABOND

Available in a wide range of sizes with many different backings including glass-fiber cloth, silk, cellophane, cotton fabric "Mylar," and paper. Micabond Tapes are hand laid; flexible sheets are both hand and machine laid; both retain their electrical insulating properties at elevated temperatures.

New . . . Micabond with glass-fiber cloth backing! When you need

maximum reliability under high-temperature service, resistance to mechanical abuse, coupled with the maximum safety factor, specify Micabond glass-fiber sheets, tapes, wrappers. Composed of India Mica splittings, bonded with flexible resin and faced on one or both sides with impregnated glass-fiber cloth, these new C-D-F products are superior to varnished glass-fiber combinations in deeply imbedded "hot-spot" applications. Write for technical bulletin and samples.

CONTINENTAL DIAMOND FIBRE

MOLDED AND LAMINATED PLASTICS — FOR ELECTRICAL INSULATION . . .

----- DILECTO ----- L A M I N A T E D P L A S T I C S -----



POST-FORMING: Certain Dilecto grades (CF-1 and XF) may be formed to special shapes by heating and placing in an inexpensive cold mold. The thermoelastic properties of these Dilecto laminates open many production and design opportunities. Already widely used by the aircraft industry, Post-Forming Dilecto merits full investigation by every alert manufacturer. Write for complete C-D-F engineering service.

DILECTO ROLLED OR MOLDED TUBING finds wide usage in radio and electrical equipment because of excellent electrical insulation and mechanical strength. Impregnated paper or fabric is rolled on a mandrel between heated pressure rolls, then oven baked or press cured in a heated mold to set up the resin.

Dilecto, a laminated resin-bonded material, meets the need for a non-metallic lightweight insulating material that is moisture resistant, good electrically, strong and adaptable to all fabricating operations. Some grades have exceptionally high mechanical strength—tensile, flexural, impact; others have high dielectric strength, high insulation resistance, high arc resistance, or low loss factor.

Dilecto is a laminated material made from a base of either cellulosic paper; heavy or fine weave woven cotton fabric or mat; asbestos paper, woven asbestos fabric or mat; woven glass fabric or mat; and is coated with a synthetic resin.

The selection of the proper base material, the proper resin in the correct proportion, is C-D-F's job, but the end user must realize how important it is that he fully understands what dividend results can be gained mechanically, and electrically, and from a cost standpoint, by getting the very best C-D-F material for the project. Here is a brief, yet complete listing of Dilecto sheet grades, each one with a combination of proven characteristics built into the material for the specific job.

SHEET GRADE CLASSIFICATIONS (Rod and Tubing similar to sheet stock)

- X For mechanical applications when electrical properties are secondary.
- P For punching (paper-based grades).
- XX For electrical applications requiring mechanical strength.
- XXX For high humidity applications with minimum cold flow.
- L For mechanical applications requiring fine machining.
- C For mechanical applications requiring toughness plus impact strength.
- CE and LE For electrical uses requiring greater toughness than paper-based grades.
- GB For applications requiring heat resistance and high mechanical strength. Supplied in combination with phenolic, silicone, melamine, polyester, epoxy, or Teflon resin.

Note: Various C-D-F grades, identified by numbers affixed to the grade classification, are available. Ask for catalog D-55-B.

----- TEFLON -----

OUTSTANDING PROPERTIES

HEAT RESISTANCE: Due to the non-flammability and high heat resistance of Teflon,* it easily meets both Class B and Class H, AIEE standards for maximum hot spot insulation temperature. Teflon coated glass fabric laminates withstand 250°C. continuously and up to 300°C. intermittently. One factor which influences the heat resistance of Teflon is that there is no apparent degradation from oxygen, which does have a definite degrading effect on silicone materials, for instance.

*Du Pont Trade Mark

MOISTURE RESISTANCE: A Teflon laminate has practically zero water absorption and its electrical properties are little affected after long exposure to high humidity. Teflon is unaffected by fungus and temperature changes. Not only has it lower moisture absorption than any other laminate known, but it tends to repel water . . . retaining high surface insulation resistance properties even under extreme humidity conditions.

DIELECTRIC STRENGTH: The dissipation factor and dielectric constant of Teflon glass-fiber base laminates are both extremely low over a wide frequency range. From 60 to 100 megacycles, the dissipation factor range is between .005 to .0005 and the dielectric constant ranges from 2.8 to 2.5 when measured in a field perpendicular to laminations. As corona will slightly degrade Teflon, care should be taken in designing parts used at voltages over 2500. Sharp corners, and other contributing factors to corona should be avoided.

CHEMICAL INERTNESS: Resistant to hot corrosive salts and most concentrated acids. Pure Teflon is unaffected by all known chemical agents, excepting molten alkali metals and, under special conditions, fluorine and chlorine trifluoride. Glass-supported Teflon, when exposed at cut edges, is affected only by those chemicals which attack glass. Otherwise, its properties remain the same. Write for Teflon folders.

TEFLON TYPICAL PROPERTY VALUES COMPARED WITH OTHER GLASS-BASE LAMINATES

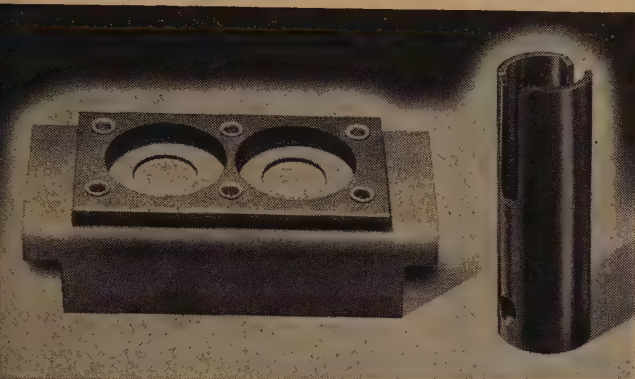
	TEFLON (Unsupported)	TEFLON GB-122T (Teflon resin)	DILECTO GB-12S (Silicone resin)	DILECTO GB-28M (Melamine resin)	DILECTO GB-12D (Phenolic resin)	DILECTO GB-28E (Epoxy resin)
Dissipation Factor, 1 megacycle	.0005	.0006	.0012	.012	.018	.020
Dielectric Constant, dry, 1 megacycle	1.90	2.85	3.4	7.2	5.0	4.90
Loss Factor, 1 megacycle	.001	.0017	.004	.090	.090	.10
Dielectric Strength, { Short time	900	700	450	500	700	700
Perpendicular to Laminations { Step by step	800	500	400	350	600	600
(1/32" thick) VPM						
Arc Resistance, Seconds.	250*	160*	225	195	4	120
Maximum Constant Operating Temp. C°.	250	250	200	175	140	150
Flexural Strength { Lengthwise		13	30	48	24	65
(Thousands of psi) { Crosswise		11	27	40	20	55
Water Absorption, % 24 hours (1/16" thick) Negligible		.03	.20	1.7	2.0	0.12

* Will not form complete conducting path. Arc continues indefinitely but material gradually erodes away on full time continuous arc.

CONTINENTAL DIAMOND FIBRE

..... FOR EVERY APPLICATION IN ELECTRONIC MANUFACTURING

VULCANIZED FIBRE FABRICATED AND FORMED



GOOD EXAMPLES of Diamond Fibre formed and machined by C-D-F. Left—An insulating barrier made from three pieces of fibre, punched and formed. Fibre tubing is even used for rivets. Right—A fibre tube which has been smooth-sawed to length, punched twice and countersunk. C-D-F can handle the entire job for you, do it faster and at low cost. This includes selecting and testing the proper grade of fibre, machining and inspection, assembling if needed.

For your job is to select a general-purpose insulating material that is low cost, useful for both electrical and mechanical applications, easy to machine and form, consider the advantages of a unique old-timer—C-D-F's Diamond Vulcanized Fibre.

WHAT IS FIBRE? Vulcanized fibre is made by combining layers of chemically gelled paper. The chemical compound used in gelling the paper is subsequently removed by leaching and the resulting product, after being dried and finished by calendaring, is a dense material of partially regenerated cellulose in which the fibrous structure is retained in varying degrees, depending upon the grade of fibre. —NEMA Standard VU 1-1.1

GOOD ELECTRICALLY. Although given a modest insulation rating for resistance to heat (A.I.E.E. Class A with a temperature limit of 221°F.),

Diamond Fibre is often used because of its excellent arc resistance and good dielectric strength. It also has desirable deionizing properties and low heat conductivity. Fibre can be combined or surrounded with moisture-resistant laminated plastic.

MANY GRADES AND FORMS. Diamond Fibre sheet and roll grades include Bone, Commercial, and Electrical Insulation (fish paper) NEMA grades. Fibre tubing is normally made only in Bone grade, with rods available in both Bone and Commercial grades. The chart shown outlines the major characteristics of these grades.

C-D-F BONE FIBRE	Hard, stiffest grade. High density. Resists wear, abrasion, has high compressive strength. Good dielectric strength when dry. Super machining qualities. Not recommended for bending.
C-D-F COMMERCIAL FIBRE	Mechanical and electrical grade. Medium density. Tough, pliable. Good mechanical properties. Fair dielectric strength, normally high when dry. Can be bent, punched, and formed.
C-D-F DIAMOND INSULATION	Electrical insulation "fish paper" grade. Unusually free from foreign matter. Withstands extreme bending and forming without cracking. High dielectric strength, except under high humidity.

TOUGH, RESILIENT, STRONG. How long has it been since you examined the unique properties and wide range of C-D-F fibre grades? Vulcanized Fibre is arc resistant, mechanically strong, non-corroding, half the weight of aluminum. Repeated moistening and drying in forming insignificantly alters the nature, structure or quality of the fibre.

A BIG, RELIABLE SOURCE. C-D-F does business with the largest tonnage users of sheet, rod and tube fibre in the world. This means good deliveries, good prices, reliable products for every new customer. You deal with a materials engineer, a C-D-F man who knows how to give you the most value in Diamond Vulcanized Fibre. If you want to improve design, simplify purchasing, speed production, use Diamond Fibre and the facilities of C-D-F. Write for new Diamond Fibre catalog DVF-55, free test samples, or send us your print for quotation.

MECHANICAL PROPERTIES OF DIAMOND VULCANIZED FIBRE

Property	Sheet thickness, tube wall or rod diameter	SHEETS				TUBES	RODS	
		Bone Grade		Diamond Insulation* & Commercial Grades			Bone Grade	Commercial Grade
Tensile Strength	Up to 1/8"	CW	LW	CW	LW	6500	8500	8000
	Over 1/8 to 1/2	6500	8500	6000	8000			
	Over 1/2	6000	8000	5500	7500			
		.....	.....	5000	7000	6500	.....	7000
Flexural Strength	Up to 1/2"	13,000	15,000	12,000	14,000		15,000	14,000
	Over 1/2	.....	.....	11,000	13,000			
Compressive & Axial Strengths	Up to 1/8"					10,000 9000		
	Over 1/8 to 5/16							
	All thicknesses or diameters	30,000		20,000			8000	6,000

NOTE—* Tensile strength only.

VULCOID RESIN-IMPREGNATED FIBRE

Only C-D-F supplies Vulcoid in sheets, tubes, rods, and fabricated parts. Made from Diamond Vulcanized Fibre that has been uniformly impregnated with a special resin, Vulcoid is a material approved and identified by the Underwriters' Laboratories as Class A insulation. Natural greenish-tan in color, it is economical, easy to machine and punch. Property-wise, Vulcoid is an intermediate grade between Commercial Fibre and XX phenolic Dilecto.

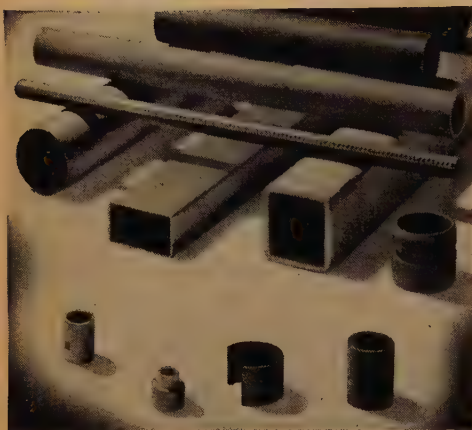
USES: (requiring arc resistance and mechanical strength)—contact and connector panels, knife switch arms and guides, arc deflector spacer bushings; (requiring dielectric strength and moisture resistance)—electrical fixture insulation, wiring devices, plugs, receptacles; (requiring moisture and arc resistance)—motor and transformer lead bushings and terminal blocks. Write for folder V-55 and test samples.

CONTINENTAL DIAMOND FIBRE

MOLDED AND LAMINATED PLASTICS...FOR THE ELECTRONIC INDUSTRY

LOW COST, HIGH STRENGTH PLASTIC

SPIRAL TUBING



AVAILABLE GRADES OF SPIRAL TUBING

IMPREGNATED

- 1 General Electrical and Mechanical Grade. ○
- 1A Electrical and Mechanical Grade—Special Punching. ○
- 2 Mild Stapling, Riveting, and Post Forming Quality. ○
- 2A Intermediate Fabricating and Stapling Quality. ○
- 3 Severe Stapling, Riveting, and Post Forming Quality. ○
- 5 Constant Torque and Formed-to-Shape Coil Form Tubing. △
- 6 Special for High Humidity Applications. ○
- 6A Extra Hard, High Strength Tubing. ○
- 7 Soft Varnished Kraft Tubing. ○ □
- 7A Hard, Rigid Rectangular Tubing. □
- 8 Varnished Diamond Insulation—Tubing. ○
- 9 "Deflection Coil" Tubing. ○
- 10 Larger Size, Heavy Wall Tubing for Mechanical Uses. ○

UNIMPREGNATED

- 20 Special Wound in Specified Combinations of Kraft paper, fish paper, etc. ○ □
 - 21 Plain Kraft Paper Tubing. ○ □
 - 22 Plain Diamond Insulation Tubing. ○
 - 23 Plain Chipboard Tubing. ○
- Round
△ Formed (fluted shape) □ Formed and Notched Square, Rectangular

GOOD DIELECTRIC STRENGTH

GOOD MECHANICAL STRENGTH & MOISTURE RESISTANCE

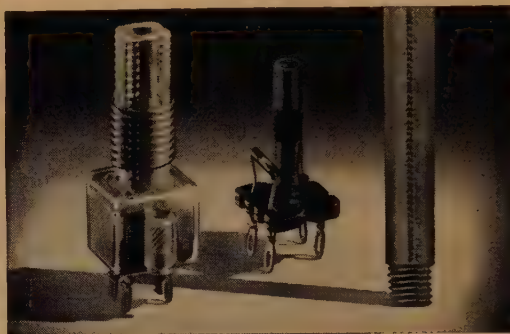
C-D-F Spiral Tubing is a high-strength plastic made from paper or vulcanized fibre that is spirally wound. It is available in two forms: 1. as plain untreated tubing. 2. as impregnated tubing containing phenolic resin or insulating varnish.

Used in many coil form and electronic applications, C-D-F Spiral Tubing can be used to replace rolled or molded laminated phenolic tubing in many cases. The degree of mechanical strength and mois-

LOW DIELECTRIC LOSS PROPERTIES

ture resistance is established during the manufacturing process, so that the designer and production man obtains the correct properties required for the application.

Write for new catalog and samples. Call the C-D-F sales engineer listed for complete information about C-D-F's fabricating and inspection facilities. Unit costs can be reduced, products improved with new C-D-F plastic Spiral Tubing!



NEW CONSTANT TORQUE

TUBING, for permeability tuning with iron cores, features stable torque ratings, exact internal threading with three point suspension of core to prevent binding, no external embossing. Write for samples.



ONE OF MANY GRADES is

Grade 3, a softer tube for difficult fabricating. May be notched and formed—suitable for severe stapling and riveting.

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Canadian Representative DIAMOND STATE FIBRE CO. OF CANADA, LTD. 46 Hollinger Rd., Toronto 13, Ontario, Can.					

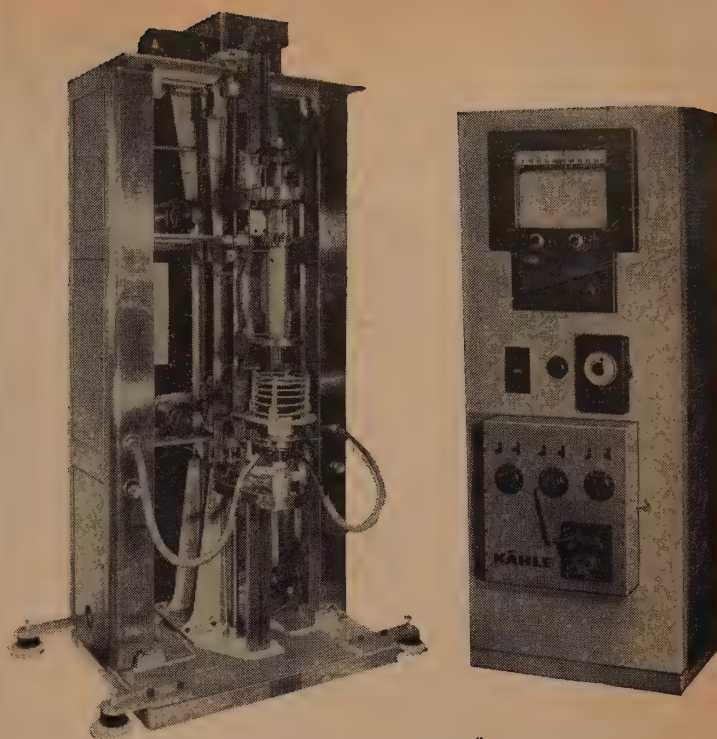


CONTINENTAL-DIAMOND FIBRE

A SUBSIDIARY OF THE BUDD COMPANY • NEWARK 41, DELAWARE

CONTINENTAL DIAMOND FIBRE

need semiconductor production equipment?



CRYSTAL GROWING MACHINE #2901
FOR GERMANIUM AND SILICON CRYSTALS

KAHLE'S MACHINE DESIGN, DEVELOPMENT AND FABRICATION SERVICES ARE THE NO-RISK ANSWER

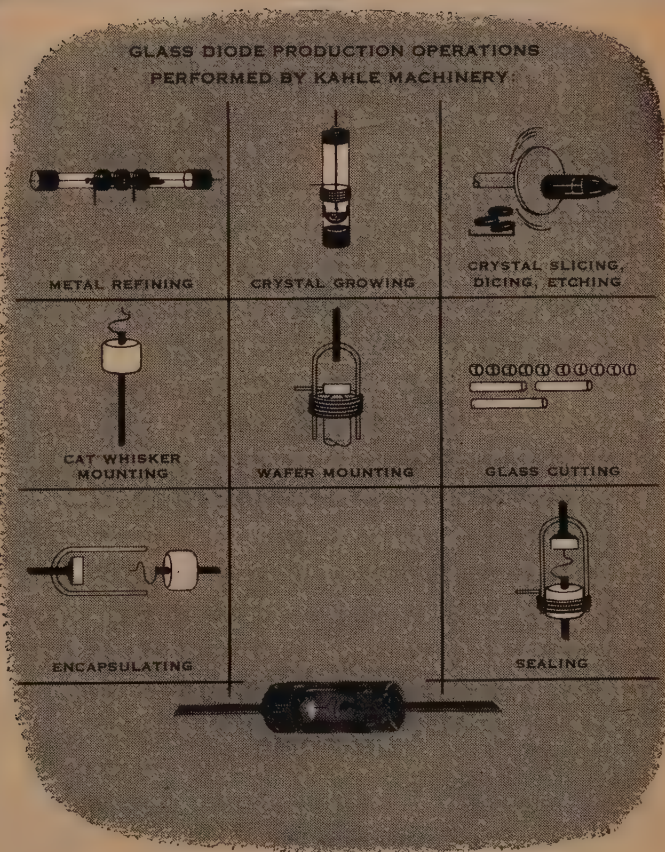
When you work with Kahle, the end result is assured . . . because all Kahle Machines are tested under *your* actual production conditions before shipment. In addition each machine is the result of Kahle's continuous experience which dates back to the days of the old carbon lamp.

But Kahle is modern, too . . . having *already* manufactured machines for every semiconductor production process. Their outstanding production records achieved for leading companies are available for your inspection.

Economy is another mark of a Kahle machine . . . hundreds of standard models can help solve your problems . . . when required, a special design is quickly and effectively created.

Relieve your engineering staff . . . assign the design, development and fabrication of production machinery and equipment to Kahle.

For an individual analysis of your problem, write outlining details,



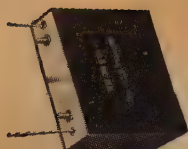
KAHLE

ENGINEERING COMPANY

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1357 SEVENTH STREET
NORTH BERGEN, N. J.

PLANTS:
SEVENTH STREET, NORTH BERGEN, N. J.
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DESIGNERS AND BUILDERS OF SPECIAL AUTOMATIC AND SEMI-AUTOMATIC EQUIPMENT FOR ALL INDUSTRIAL OPERATIONS



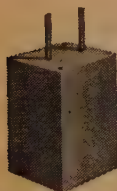
SUBMINIATURE FILTERS

- for I.F. amplifiers, printed circuit use
- temperature compensated to .15% from -55°C to $+85^{\circ}\text{C}$
- for operations above 1 mc
- dimensions: $13/16'' \times 2-1/2'' \times 2''$ high



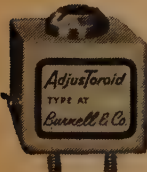
ENCAPSULATED TOROIDS

- hermetically sealed
- high Q
- center-mounting permits stacking
- complete range of sizes and types
- dimensions: $21/32'' \times 3/8''$



TOM THUMB TELEMETERING FILTERS

- miniaturized for guided missiles
- high temperature stability
- designed to withstand shock and vibration
- hermetically sealed —wt. 1.5 oz.
- dimensions: $45/64'' \times 45/64'' \times 2''$ high



SUBMINIATURE ADJUSTOROIDS

- precise continuous adjustment of inductance over a 10% range
- no external control current needed
- hermetically sealed
- low cost—wt. .83 oz.
- dimensions: $45/64'' \times 45/64'' \times 3/4''$ high



you're all set to roll...

...with a toroid, filter or related network by Burnell.

For Burnell *specializes* in these components; in manufacturing them *and* in delivering them on schedule — at competitive prices.

Today Burnell makes toroids, and the filters of which they are the basic components, small enough to meet a multitude of new purposes . . . in aircraft and guided missiles . . . in receivers, carrier and telemetering systems.

Very likely we already have the answer to your network needs among our extensive files. If not, we can swiftly find that answer for you. Try us and see.

Burnell & Co., Inc.



first in toroids, filters and related networks

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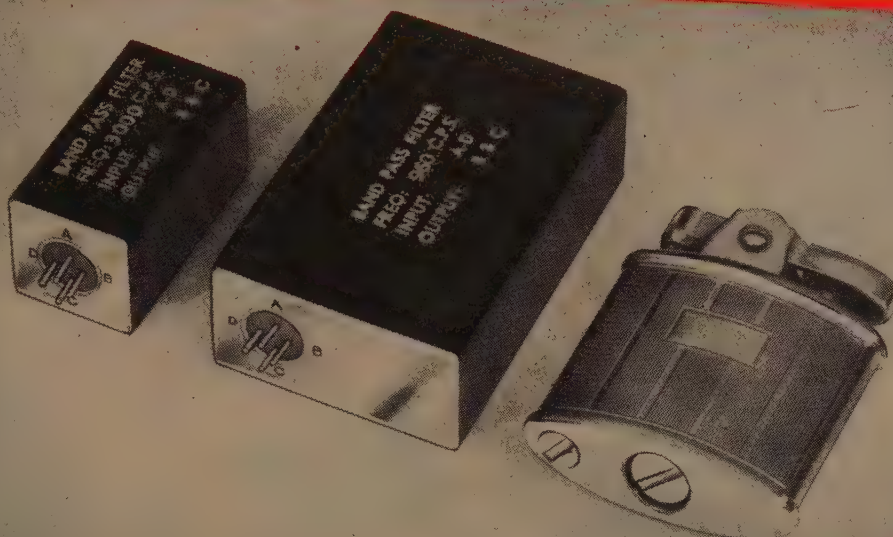
TELEPHONE: Pelham 8-5002

PACIFIC DIVISION: 720 MISSION STREET, SOUTH PASADENA, CALIFORNIA

TELETYPE: PASADENA 7578

Burnell SUBMINIATURE FILTERS

AS SMALL AS $\frac{3}{4}$ " X $\frac{3}{4}$ " X $1\frac{3}{8}$ "
AS LIGHT AS $1\frac{1}{4}$ OUNCES



"TOM THUMB" TELEMETERING FILTERS

Designed and tested to specification #MIL-T 26985

Supplied in two principal case sizes:

1. For RDB channels 1 through 6, case size is $\frac{3}{4}$ x $1\frac{1}{2}$ x $2\frac{1}{4}$ inches high; weight: 4 ounces.
2. For channels 7 and up, case size is $\frac{3}{4}$ inches square and $1\frac{3}{8}$ inches high; weight: $1\frac{1}{4}$ ounces.

These cases are generally equipped with a 4-pin plug to match the small Winchester socket.

ATTENUATION CHARACTERISTICS

Impedance: 100 K ohms in and out.

Insertion loss: less than 6 db.

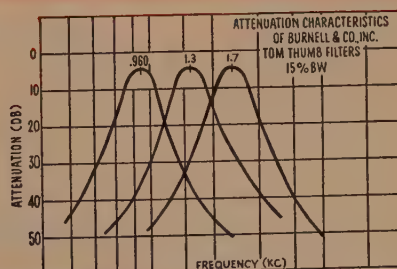
At $\pm 7.5\%$ band width is less than 3 db.

At $\pm 25\%$ band width is greater than 15 db.

At 1.75 f attenuation is 40 db or more.

At .57 f attenuation is 40 db or more.

CHAN. #	FREQ.	IMP. 100K P/N	B. W.	SIZE	WT.
1	400 cps.	S-60001	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $1\frac{1}{2}$ x $2\frac{1}{4}$ H	4 oz.
2	560 cps.	S-60002	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $1\frac{1}{2}$ x $2\frac{1}{4}$ H	4 oz.
3	730 cps.	S-60003	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $1\frac{1}{2}$ x $2\frac{1}{4}$ H	4 oz.
4	960 cps.	S-60004	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $1\frac{1}{2}$ x $2\frac{1}{4}$ H	4 oz.
5	1300 cps.	S-60005	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $1\frac{1}{2}$ x $2\frac{1}{4}$ H	4 oz.
6	1700 cps.	S-60006	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $1\frac{1}{2}$ x $2\frac{1}{4}$ H	4 oz.
7	2300 cps.	S-60007	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
8	3 KC	S-60008	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
9	3.9 KC	S-60009	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
10	5.4 KC	S-60010	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
11	7.35 KC	S-60011	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
12	10.5 KC	S-60012	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
13	14.5 KC	S-60013	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
14	22 KC	S-60014	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
15	30 KC	S-60015	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
16	40 KC	S-60016	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
17	52.5 KC	S-60017	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
18	70 KC	S-60018	$\pm 7\frac{1}{2}\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
A	22 KC	S-60019	$\pm 15\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
B	30 KC	S-60020	$\pm 15\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
C	40 KC	S-60021	$\pm 15\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
D	52.5 KC	S-60022	$\pm 15\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.
E	70 KC	S-60023	$\pm 15\%$	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{3}{8}$ H	$1\frac{1}{4}$ oz.



Burnell & Co., Inc.

Note our new address:
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Compact, packaged fans and blowers
for Original Equipment Manufacturers

AMERICAN BLOWER AIR-MOVING UNITS



Aluminum pressure blower for radar cooling. Capacity: 984 cfm @ 1" sp to 536 cfm @ 7" sp @ 3450 rpm.

Bulletin 4512



Aluminum pressure blower. Capacity: 546 cfm @ 1" sp to 215 cfm @ 6" sp @ 3450 rpm.

Bulletin 4312



High-pressure, low-volume blower for commercial or military applications. Capacity: 200 cfm @ 5.5" sp @ 3450 rpm.

Bulletin 2412



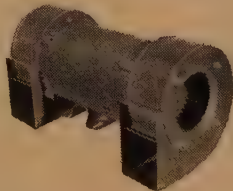
Typical small blower for commercial applications. Capacity: 15 cfm @ .4" sp to 65 cfm, free delivery @ 2775 rpm.

Bulletin 912



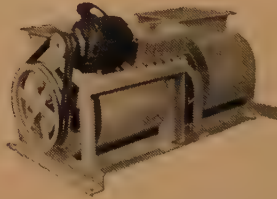
High-volume, double air inlet blower. 800 cfm @ 1.5" sp to 1370 cfm, free delivery @ 2485 rpm and 340 cfm @ 0.7" sp to 830 cfm, free delivery @ 1545 rpm.

Bulletin 1912



Space-saving duplex blower. Total capacity: 215 cfm @ 1.75" sp to 430 cfm, free delivery @ 3450 rpm.

Bulletin 1412



Two-fan V-belt-drive unit combines high volume, light weight and minimum size. Capacity: 2700 cfm @ 0.5" sp @ 1000 rpm and 4800 cfm @ 0.5" sp @ 1400 rpm.

Bulletin 3412



Propeller fan designed for electronic cabinet ventilation. Capacity: 1325 cfm @ 0" sp to 310 cfm @ 0.62" sp @ 1725 rpm.

Bulletin 4812

American Blower Division of American-Standard
Detroit 32, Michigan

Yes, I am interested in your Air-Moving Units.
Please send me Bulletins I have circled at right.

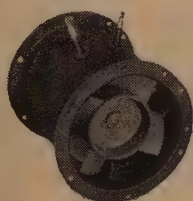
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Company _____ Title _____

City _____ Zone _____ State _____

Circle the Specification Bulletins
you want, fill out coupon, and mail.

Bulletin 312	Bulletin 2412	Bulletin 4312
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Bulletin 912	Bulletin 3212	Bulletin 4812
Bulletin 1412	Bulletin 3412	Bulletin 5112
Bulletin 1912	Bulletin 3612	Bulletin 5312
	Bulletin 3812	



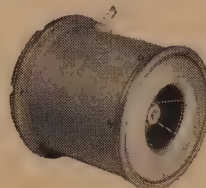
Small aluminum axial flow fan designed for cooling electronic equipment in aircraft. Capacity: 110 cfm @ 0.6" sp to 165 cfm, free delivery @ 7250 rpm.

Bulletin 3812



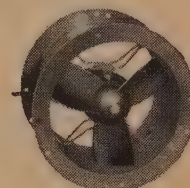
Aluminum axial flow fan designed to meet military requirements. Capacity: 500 cfm @ 5" sp @ 5600 rpm.

Bulletin 3612



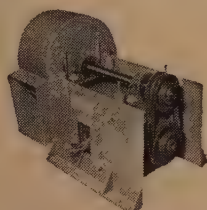
Axial flow fan; no dip in pressure curve. 226 cfm @ 0" sp to 134 cfm @ 3" sp at 7600 rpm max. sp 4.5". 285 cfm @ 0" sp to 150 cfm @ 7" sp at 11000 rpm max. sp 9.5".

Bulletin 5312



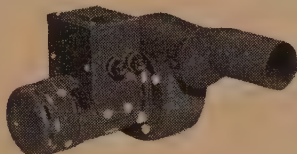
Tubeaxial fan for flushing electronic equipment cabinets and racks. Double flange allows mounting at either end. Capacity: 295 cfm, free delivery @ 1550 rpm.

Bulletin 5112



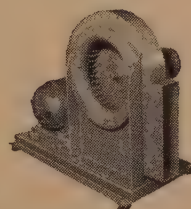
Heavy-duty V-belt-driven blower for communication transmitter cooling. Capacity: 517 cfm @ 0.25" sp at 640 rpm and 1400 cfm @ 1.5" sp @ 1642 rpm.

Bulletin 2712



Special blower for military requirements. Capacity: 100 cfm @ 1" sp to 150 cfm, free delivery @ 5600 rpm.

Bulletin 412



V-belt-driven blower for TV transmitter cooling. Capacity: 1700 cfm @ 4.5" sp @ 1540 rpm at sea level and 2700 cfm @ 5.75" sp @ 2030 rpm at 7500 ft. elevation.

Bulletin 3212



Compact tube cooler designed to meet military applications. Capacity range: 35 cfm @ 4" sp to 80 cfm @ 1.5" sp @ 8000 rpm approx.

Bulletin 312

All of the above American Blower air-moving units can be modified to meet your specific requirements. We welcome the opportunity to discuss and quote on your application. Individual Specification Bulletins are available on each unit. Simply fill out and mail coupon at right and they will be sent to you promptly. American Blower Division of American-Standard, Detroit 32, Michigan. In Canada: Canadian Sirocco products, Windsor, Ontario.

AMERICAN BLOWER

Division of **AMERICAN-Standard**



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 BUYERS'
 GUIDE

HYDROGEN THYRATRON TUBES

KUTHE HYDROGEN THYRATRON TUBES are built to the most rigid specifications that insure consistently uniform, top quality performance.



1258

Peak pulse power.....10 KW
 Peak forward anode voltage.....1.0 KV
 Peak anode current.....20 amperes
 Average anode current.....50 ma. max.
 Pb..... 0.1×10^9

3C45

Peak pulse power.....50 KW
 Peak forward anode voltage.....3000 volts max.
 Peak anode current.....35 amperes max.
 Average anode current.....45 ma. max.
 Pb..... 0.3×10^9

3C45W

Electrical characteristics same as 3C45 except a hydrogen reservoir is incorporated for long tube life. Ruggedized construction is used.

4C35

Peak pulse power.....350 KW
 Peak forward anode voltage.....8.0 KV max.
 Peak anode current.....90 amperes max.
 Average anode current.....100 ma. max.
 Pb..... 2.0×10^9

SGR-1

Electrical characteristics same as 4C35 except
 t_{ad} 0.6 us
 Δt_{ad} 0.04 us
 t_f 0.01 us
 A hydrogen reservoir is incorporated for long tube life.

5956/E36

(Compact and rugged, suitable for airborne radar)
 Peak pulse power.....350 KW
 Peak forward anode voltage.....8.0 KV max.
 Peak anode current.....90 amperes max.
 Average anode current.....100 ma. max.
 Pb..... 2.5×10^9
 A hydrogen reservoir is incorporated for long tube life.

5957/E37B

Electrical characteristics same as 5956/E36. Construction also identical, except for special ceramic, 4-pin base and size, which is 4.0" o.a.l. x 1.56" dia. max.

6777/KU14

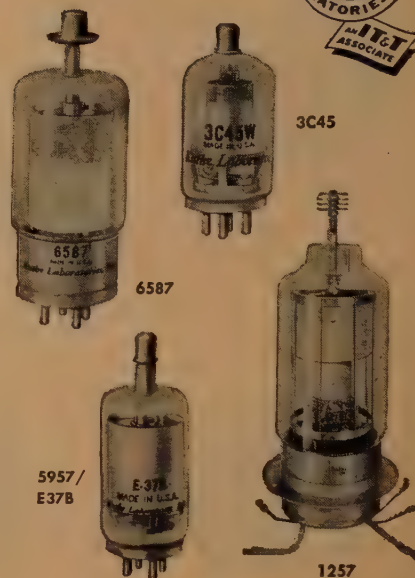
Peak pulse power.....120 KW
 Peak forward anode voltage.....8.0 KV max.
 Peak anode current.....35 amperes max.
 Average anode current.....45 ma. max.
 Pb..... 1.1×10^9

5958/E40

(Compact and rugged, suitable for airborne radar)
 Peak pulse power.....150 KW
 Peak forward anode voltage.....8.0 KV max.
 Peak anode current.....40 amperes max.
 Average anode current.....45 ma. max.

5959/E41

Electrical characteristics same as 5958/E40. Construction also identical, except for special all-glass, 4-pin base and size, which is 4.0" o.a.l. x 1.56" dia. max.



1257

Peak pulse power.....38,000 KW
 Peak forward anode voltage.....38.0 KV max.
 Peak anode current.....2000 amperes max.
 Average anode current.....2500 ma. max.
 Pb..... 2.0×10^9

5C22/HT415

Peak pulse power.....2500 KW
 Peak forward anode voltage.....16.0 KV max.
 Peak anode current.....325 amperes max.
 Average anode current.....200 ma. max.
 Pb..... 3.2×10^9

KU25

Electrical and mechanical characteristics same as 5C22/HT-415, except for modification permitting operation at high pulse recurrence rates.

6587

Peak pulse power.....2500 KW
 Peak forward anode voltage.....16.0 KV
 Peak anode current.....325 amperes
 Average anode current.....225 ma. max.
 Pb..... 3.9×10^9

5949/1907

Peak pulse power.....6000 KW
 Peak forward anode voltage.....25.0 KV max.
 Peak anode current.....500 amperes max.
 Average anode current.....500 ma. max.
 Pb..... 6.25×10^9

5948/1754

Peak pulse power.....12,000 KW
 Peak forward anode voltage.....25.0 KV max.
 Peak anode current.....1000 amperes max.
 Average anode current.....1000 ma. max.
 Pb..... 9.0×10^9

RESERVOIR EQUIPPED TUBES

Kuthe Laboratories, Inc.

An Associate of

INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION
 730 SOUTH 13th STREET
 NEWARK, NEW JERSEY



Federal

ELECTRONIC TUBES

DEPENDABLE

Federal

ELECTRON TUBES

TRAVELING WAVE TUBES

TRANSMITTING • BROADCASTING

INDUSTRIAL

SPECIAL PURPOSE

Clipper Diodes • Hard Tube Modulators

High Voltage Rectifiers

Mercury Vapor Rectifiers



Traveling Wave Tube



F-6399
Integral water jacket triode designed especially for industrial applications.



F-5918
High power triode for broadcast communications and industrial applications.

FEDERAL TRAVELING WAVE TUBES

Type	Frequency KMC	Power Output (Watts) CW	Pulse
F-6658	2.0-4.0	1	2.5
F-6825	2.4-3.6	—	1000
F-6826	2.4-3.6	—	750
F-6867	8.5-9.6	0.2	0.2
F-6868	2.0-4.0	10	10
F-6996	8.0-9.6	10	—
F-6997	2.7-2.9	—	30

FEDERAL RECTIFYING TUBES

Type	Description	Max. Peak Inverse Volt.	Max. Peak Current (Amps.)	Filament Voltage
F-869-B	Mercury Vapor	20,000	10	5
F-857-B	Mercury Vapor	22,000	40	5
F-575-A	Mercury Vapor	15,000	6	5
F-673	Mercury Vapor	15,000	6	5

Basic Technical Data Covering Complete Line of FEDERAL POWER TUBES

Type	Description	Cooling*	Plate Dissipation	Mu	Plate Input	DC Plate Volt.	Max. Freq. Ratings	Filament Voltage
F-3X2500A3	HF Triode	A	2.5 KW	20	8 KW	4,000	110 MC	7.5
F-3X2500F3	HF Triode	A	2.5	20		6,000	30	7.5
F-7C23	Pulse Triode	A	1.2	25		17,000	5	11
F-7C25	HF Triode	A	2.5	25	5.6	4,500	50	11
F-7C26	HF Triode	A	1	17	3	3,000	150	9
F-8C25	AF Triode	A	5	6	10	5,000		7
F-9C23	RF Triode	W	25	32	50	15,000	20	22
F-9C28	AF Triode	W	40	4.75	100	15,000		7.5
F-9C29	AF Triode	A	20	4.75	50	15,000		7.5
F-9C30	RF Triode	W	40	42	120	15,000	20	7.5
F-9C31	RF Triode	A	20	42	100	15,000	20	7.5
F-110X	RF Triode	W	25	40	50	20,000	3	28
F-124-A	RF Triode	W	40	42	135	20,000	20	13.6
F-124R	RF Triode	A	20	42	100	20,000	20	13.6
F-125-A	AF Triode	W	40	4.75	100	15,000		13.6
F-127-A	RF Triode	A	0.2	38	0.95	3,000	30	10
F-128-A	RF Triode	A	0.6	36	3	3,500	30	11
F-129-B	RF Triode	W	7.5	26	18	12,000	30	18
F-129-R	RF Triode	A	5	26	18	12,000	30	18
F-132-A	AF Triode	A	0.6	10	1.8	3,500		11
F-134	RF Triode	W	150	21	450	20,000	22	25
F-212E	RF Triode	A	0.275	16	0.7	2,000	4.5	14
F-220CA/320BA	RF Triode	A	5	40	22.5	15,000	4	21.5
F-220C/320B	RF Triode	W	10	40	22.5	15,000	4	21.5
F-342-A	RF Triode	W	25	40	50	20,000	4	20
F-343-A	RF Triode	W	10	40	36	18,000	4	21.5
F-343-AA	RF Triode	A	5	40	20	18,000	4	21.5
F-631	RF Triode	W	25	40	50	20,000	3	28
F-862-A	RF Triode	W	100	45	200	20,000	1.6	33
F-891	RF Triode	W	6	8.5	18	12,000	1.6	11/22
F-891-R	RF Triode	A	4	8.5	15	10,000	1.6	11/22
F-892-A	RF Triode	W	10	50	30	15,000	1.6	11/22
F-892-R	RF Triode	A	4	50	18	10,000	1.6	11/22
F-898-A	RF Triode	W	100	45	200	20,000	1.6	16.5
F-5604	HF Triode	A	10	19.5	32.5	12,500	22.5	11
F-5606	RF Triode	W	10	50	30	15,000	1.6	22
F-5619	HF Triode	W	20	19.5	32.5	12,500	22.5	11
F-5658	RF Triode	W	20	20.5	60	10,500	25	12
F-5666	HF Triode	W	12.5	21	20	10,000	22.5	11
F-5667	RF Triode	A	7.5	21	20	10,000	22.5	11
F-5668	RF Triode	W	20	50	28	14,000	5	22
F-5669	RF Triode	A	10	50	28	14,000	5	22
F-5680	HF Triode	A	2.5	25	12	6,000	30	13
F-5762	HF Triode	A	3	29	8.7	6,200	30	12.6
F-5771	RF Triode	W	22.5	20	60	12,500	25	7.5
F-5874	AF Triode	W	7.5	6	15	6,000		7
F-5917	HF Triode	W	5	20	8	4,000	110	7.5
F-5918	RF Triode	W	70	37	300	17,500	22	11
F-5919	RF Triode	A	35	37	175	17,500	22	11
F-5996	HF Triode	A	2.5	25	12	6,000	30	13
F-6009	HF Triode	W	6	25	12	6,000	30	13
F-6166	VHF Tetrode	A	10	10	16	5,900	220	5
F-6179	AF Triode	W	50	4.75	120	15,000		27.2
F-6366	HF Triode	A	3	25	7	5,500	30	11
F-6367	HF Triode	A	3	25	12	6,200	30	13
F-6379	AF Triode	W	70	4.75	150	17,500		11
F-6398	RF Triode	W	225	21	500	25,000	22	15.5
F-6399	HF Triode	W	6	25	9	6,200	30	11
F-6400	HF Triode	W	6	25	18	9,200	30	13
F-6401	Pulse Triode	W	1	12		17,000	600	4.25
F-6691	HF Triode	A	15	37	54	12,500	30	5
F-6692	HF Triode	W	30	37	80	15,000	30	5
F-6800	HF Triode	W	20	20	45	15,000	22	7.5
F-6801	HF Triode	A	10	20	40	15,000	22	7.5
F-6920	Pulse Triode	A	10	41		35,000		11
F-6921	AF Triode	W	30	4.25	60	15,000		5
F-6925	RF Triode	A	3	17	12	6,500	50	13
F-6926	RF Triode	W	6	17	12	6,500	50	13
F-7012	HF Triode	A	2.5	25	12	6,000	30	15

* A=Forced Air Cooling

W=Water Cooled

ALL RATINGS MAX.

FEDERAL TUBES

Components Division

INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

100 Kingsland Road • Clifton, N. J.

When ordering or seeking information please mention Electronics Buyers' Guide.

RADIO AND TELEVISION

FEATURES

1. Longer life.
2. Higher output voltage.
3. Lower temperature rise.
4. Superior humidity resistance.
5. Proven mechanical construction.
6. 85° C. UL acceptance.
7. Conservative ratings.
8. More uniform quality.
9. Largest plant capacity.
10. More engineering know-how.



1090A Stud Construction (S)



1003A Eyelet Construction (E)

OTHER AVAILABLE TYPES

- Printed circuit rectifiers
- Plug-in rectifiers
- Special purpose rectifiers manufactured to customer specifications

FTR Catalog No.	Max. DC-Ma.	Max. RMS Volts	Mtg. "M" Dim. (Max.)	Plate Size	Application
FEDERAL'S STANDARD SELENIUM RECTIFIERS					
1159	20	130	—	3/4" dia.	B + Booster-Bias
*1002 A	65	130	3/16"	1" sq.	B - AC-DC (5 Tube)
*1003 A	75	130	1/4"	1" sq.	B - 3 Way Radio
*1101 A	100	130	1/4"	1" sq.	B - Radio-TV
*1004 A	100	130	3/4"	1 1/2" x 1 1/2"	B - Radio-TV
*1005 A	150	130	1"	1 1/2" x 1 1/2"	B - Radio-TV
*1006 A	200	130	1"	1 1/2" sq.	B - Television
*1028 (1010)	250	130	1 1/2"	1 1/2" sq.	B - Booster-Bias
1090 A	300	130	2 1/2"	1 1/2" sq.	B - Television
1023 A (1206)	350	130	2 1/2"	1 1/2" sq.	B - Television
1130 (1056)	400	130	1 1/2"	2" sq.	B - Television
1179 (1021)	500	130	2 1/2"	2" sq.	B - Television
FEDERAL'S SPECIAL PURPOSE RECTIFIERS					
1015	150	25	1" sq.	1" sq.	Filament Supply
*1512 (1018)	1600	18	1 1/2" sq.	2 1/2" sq.	Power Supply
1014	100	172	1" sq.	1 1/2" max.	Battery Charger
1007	75	172	2 1/4"	1" sq.	Power Supply
1008	100	172	2 1/4"	1 1/4" sq.	High Voltage
1009	200	172	2 3/4"	1 1/2" sq.	Power Supply
1022	450	172	2 1/4"	2" sq.	High Voltage
*1016	300	25	3/4"	1 1/2" x 1 1/2"	Power Supply
*1017	600	25	3/4"	1 1/2" sq.	Filament Supply
*1013	700	18	3/4"	1 1/2" sq.	Filament Supply
*1001	75	20	3/4"	1" sq.	Bias-Rectifier
1265	65	130	1 1/2" + 1/2" - O	1" sq.	AC-DC (Radio)
1090 AP	300	130	1 1/2" ± 1/8"	1 1/2" sq.	Plug-in Type
1356 AP	350	130	1 1/2" ± 1/8"	1 1/2" sq.	B - Television
1319 A	600	195	3 1/2"	2" sq.	B - Color Television
1090 C	300	130	2 1/2"	1 1/2" sq.	B - Television
1179-C (1021 C)	500	130	2 1/2"	2" sq.	B - Television

Letter "A" after catalog number indicates locking lug. *Eyelet construction. † Terminal to terminal dimensions.

"PACKAGED-POWER" SELENIUM RECTIFIERS

Catalog Number	Old Catalog Number	Rectifier Stock Code Number	Max. D.C. Output		Max. A.C. Input Volts	Rectifier Stock Dimensions			
			Volts	Amps.		"A"	"B" ± 1/16"	"C"	
010	21005	106C1SAX1	10	3	13	3"	1 1/2"	3"	
011	—	*107C1SAX1	10	5	13	4"	1 1/2"	4"	
012	21015	133C1SAX1	10	6	13	4"	1 3/4"	4"	
013	—	*135C1AX1	10	8	13	6"	1 3/4"	5"	
014	2102	136C1AX1	10	12	13	6"	1 3/4"	5"	
015	—	*169C1AX1	10	16	13	10"	2 3/4"	6"	
016	—	*170C1AX1	10	24	13	10"	2 3/4"	6"	
210	—	*142B1AX1	20	1.5	26	2"	1 1/2"	2"	
211	21035	106B1SAX1	20	3	26	3"	2 1/4"	3"	
212	—	*107B1SAX1	20	5	26	4"	2 1/4"	4"	
213	21045	133B1SAX1	20	6	26	4"	2 1/4"	4"	
214	—	*135B1AX1	20	8	26	6"	2 1/4"	5"	
215	2105	136B1AX1	20	12	26	6"	2 1/4"	5"	
216	—	*169B1AX1	20	16	26	10"	2 3/4"	6"	
217	—	*170B1AX1	20	24	26	10"	3 1/4"	6"	
310	20265	106B2SAX1	40	3	52	3"	3 3/4"	3"	
311	—	*107B2SAX1	40	5	52	4"	3 3/4"	4"	
312	21075	133B2SAX1	40	6	52	4"	3 3/4"	4"	
313	—	*135B2AX1	40	8	52	6"	3 1/4"	5"	
314	2108	136B2AX1	40	12	52	6"	3 1/4"	5"	
315	—	*169B2AX1	40	16	52	10"	4 1/4"	6"	
316	—	*170B2AX1	40	24	52	10"	4 1/4"	6"	
410	21185	106B3SAX1	60	2.6	78	3"	4 1/2"	3"	
411	—	*107B3SAX1	60	4.5	78	4"	4 1/2"	4"	
412	20335	133B3SAX1	60	6	78	4"	4 1/2"	4"	
413	—	*135B3AX1	60	8	78	6"	4 1/2"	5"	
414	2085	136B3AX1	60	12	78	6"	4 1/2"	5"	
415	—	*169B3AX1	60	16	78	10"	6 1/4"	6"	
416	—	*170B3AX1	60	24	78	10"	6 1/4"	6"	
510	21095	106B4SAX1	80	2.6	104	3"	5 1/2"	3"	
511	—	*107B4SAX1	80	4.5	104	4"	5 1/2"	4"	
512	21105	133B4SAX1	80	6	104	4"	5 1/2"	4"	
513	—	*135B4AX1	80	8	104	6"	5 1/2"	5"	
514	2111	136B4AX1	80	12	104	6"	5 1/2"	5"	
515	—	*169B4AX1	80	16	104	10"	7 1/2"	6"	
516	—	*170B4AX1	80	24	104	10"	7 1/2"	6"	
710	—	*104B5AX1	100	.6	130	1 1/2"	4 3/4"	1 1/2"	
711	2112	139B5AX1	100	1	130	2"	5 3/4"	2"	
712	21135	106B5SAX1	100	2.4	130	3"	6 3/4"	3"	
713	—	*107B5SAX1	100	4	130	4"	6 3/4"	4"	
714	21145	133B5SAX1	100	6	130	4"	6 3/4"	4"	
715	—	*135B5SAX1	100	8	130	6"	7 1/4"	5"	
716	—	*136B5AX1	100	12	130	6"	7 1/4"	5"	
810	2115	103B6AX1	120	.3	156	1 1/2"	4 3/4"	1 1/2"	
811	2036	104B6AX1	120	.6	156	1 1/2"	4 3/4"	1 1/2"	
812	2116	139B6AX1	120	1	156	2"	6 1/4"	2"	
813	20385	106B6SAX1	120	2.4	156	3"	7 3/4"	3"	
814	—	*107B6SAX1	120	4	156	4"	7 3/4"	4"	
815	21175	133B6SAX1	120	6	156	4"	7 3/4"	4"	
816	—	*135B6AX1	120	8	156	6"	8 3/4"	5"	
817	—	*136B6AX1	120	12	156	6"	8 3/4"	5"	

* Asterisks indicate new Type Rectifiers. Bold face type indicates Rectifiers recommended for stocking. Note: Ratings for 35° Ambient; Resistive or inductive loads.

FEDERAL'S CONTACT PROTECTORS

- End arcing contacts
- Stop erosion of switch contact surfaces
- Extend contact life by more than 1000 times
- Eliminate circuit failure and interference caused by arcing contacts



ADAPTS ALL SIGNAL AND TELEPHONE TYPE RELAYS OPERATING TO 40 TIMES PER SEC. AND DRAW UP TO 600 MA. OPERATING CURRENT AT 150V AC OR DC.

FOR DIRECT CURRENT APPLICATIONS

Max. Volts	Max. Coil Current Ma.	Minimum Federal Code #	Federal Code # (Paper Tube Only)	Dimensions	
				A	B
22	100	15	8A1PS1	2 1/4"	5/8"
22	200	15	15A1PS1	1 1/2"	5/8"
44	200	23	8A2PS1	2 1/4"	5/8"
44	500	23	15A2PS1	1 1/2"	5/8"
66	250	45	8A3PS2	2 1/4"	5/8"
66	500	45	15A3PS2	1 1/2"	5/8"
88	250	67	8A4PS2	2 1/4"	5/8"
88	500	67	15A4PS2	1 1/2"	5/8"
110	250	89	8A5PS2	2 1/4"	1 1/8"
110	600	89	15A5PS2	1 1/2"	1 1/8"
132	250	111	8A6PS2	2 1/4"	1 1/8"
132	600	111	15A6PS2	1 1/2"	1 1/8"
154	250	133	8A7PS2	2 1/4"	1 1/8"
154	600	133	15A7PS2	1 1/2"	1 1/8"

FOR ALTERNATING CURRENT APPLICATIONS

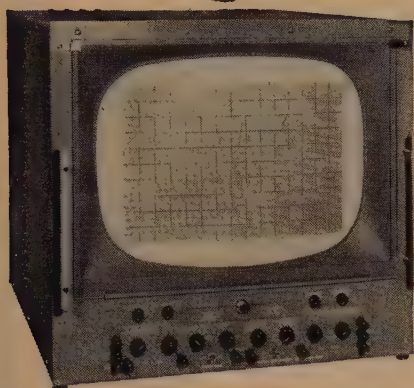
Max. Volts	Max. Coil Current Ma.	Minimum Federal Code #	Federal Code # (Paper Tube Only)	Dimensions	
				A	B
26	100	15	8A1PS1	2 1/4"	5/8"
26	200	15	15A1PS1	1 1/2"	5/8"
52	200	27	8A2PS2	2 1/4"	5/8"
52	400	27	15A2PS2	1 1/2"	5/8"
78	200	53	8A3PS3	2 1/4"	5/8"
78	400	53	15A3PS3	1 1/2"	5/8"
104	200	79	8A4PS4	2 1/4"	1 1/8"
104	400	79	15A4PS4	1 1/2"	1 1/8"
130	200	105	8A5PS5	2 1/4"	1 1/8"
130	400	105	15A5PS5	1 1/2"	1 1/8"
156	200	131	8A6PS6	2 1/4"	1 1/8"
156	400	131	15A6PS6	1 1/2"	1 1/8"

Components Division

INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

100 Kingsland Road • Clifton, N. J.

MEASURING AND TESTING EQUIPMENT



LARGE SCREEN OSCILLOSCOPES

Available in 21" Bench Console and 17" Rack Mounted Model. Basic models of each type are available; the "35" Dual Response Medium Sensitivity Models, and the High Sensitivity "40" Model featuring Differential Input in the 1 to 10 Millivolt Sensitivity Range. These Oscilloscopes feature unequalled stability and linearity.

MULTI-CHANNEL OSCILLOSCOPES

Large Screen Multi-channel Oscilloscopes feature forty input channels and permit continuous reading of forty separate signals.

The display consists of a vertical bar graph 9" high by 12" wide. The vertical length of each line indicates the value of the maximum input voltage which existed during the previous tenth of a second.

SWEPT FREQUENCY GENERATORS

Used in conjunction with an oscilloscope provides an amplitude versus frequency display of high accuracy. The frequency response plots obtained thereby permit highly accurate and rapid production testing and calibration of frequency sensitive devices. This instrument also enables the user to determine instantly the effects of changes in circuit parameters upon frequency characteristics, thus permitting an optimum design to be obtained in minimum time.

SHORT FORM CATALOGS AVAILABLE ON FOLLOWING:

TERA-OHMMETERS • IMPEDANCE BRIDGES • FREQUENCY MEASURING SYSTEMS • WAVEFORM ANALYZERS • SIGNAL GENERATORS • ELECTRONIC VOLTMETERS AND POWER METERS • CAPACITANCE STANDARDS • ATTENUATORS • FIELD INTENSITY METERS • GALVANOMETERS.

TERA-OHMMETERS INSULATION MEASUREMENTS up to

5000 MILLION MEGOHMS

For testing resistors, capacitors, cables, switches, tube sockets, transformers and many other components...incoming inspection and quality control.



Type FT-H

TYPE FT-H4

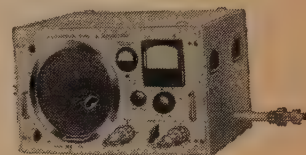
Range: 20 megohms to 5000 x 10⁶ megohms in 6 ranges • Test Voltage: Adjustable from 100 to 1000 v., dc • Accuracy: ±3% in scale center • Power Supply: 115 v., 50-60 cps. Instrument can also be operated from its own battery supply.

Note: Other types available to cover ranges from .2 megohms to 500 x 10⁶ megohms with fixed test voltages between 3 and 1000 volts.

Z-G DIAGRAPH Plots Impedance Instantaneously

Features:

- Rapid Measurement of Impedance and Admittance of Antennas, Components, Coaxial Systems, Cables, Transistors, Filters and Attenuators
- Rapid Measurement of Transmission Characteristics of Coaxial Cables, Filters and Attenuators
- Measures Phase Angle between RF Voltages
- Direct Readings on Standard Charts:
 - eliminate need for calculation
 - prevent computation errors
 - save valuable engineering time



Type FT-ZDU

SPECIFICATIONS

Freq Ranges: Type FT-ZDU . . . 30 to 300 mc; Type FT-ZDD . . . 300 to 2400 mc • Characteristic Impedance: 50 ohms • Measuring Ranges: Impedance . . . 1 to 2500 ohms; Phase . . . 0 to 360°; Attenuation . . . 0 to 30 db • Accuracy: Amplitude . . . ±3%; Phase . . . ±1.5 • Terminals: Type N • Power Supply: 115 volts (or 220 volts), 50 to 60 cycles.

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Write for Bulletin 411A

Bandwidth: DC to 10 mc., .035 μ sec rise time
Sensitivity: 20 mv/cm
Square wave calibrating voltage: from 0.1 to 100V, 5% accuracy
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Triggering: External, internal, recurrent 500 to 5000 cps.

501A TIME RATE INDICATOR

High speed digital frequency meter and timing instrument for measurement and digital display of frequency, period, ratio, rate, pulse width, intervals, elapsed time and total. Built-in video amplifier and period measurement unit.

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10 mc counting rate
All neon display
7 decade scalers in time base
Period range: 10 μ sec to 28,000 hrs.
Interval range: .1 μ sec to 28,000 hrs.
Display time: .07 to 10 sec or INF
Recorder, heterodyne, and timing pulse outputs

814 ULTRASTABLE MICROWAVE OSCILLATOR

For any microwave research requiring a stabilized signal source.

Write for Bulletin 814

Frequency range: 8500 to 10,000 mc/s.
Stability: 5 parts in 10^8 short term, 1 part in 10^6 long term
80 mw nominal into 50 ohm load power output

5004 MICROWAVE STABILITY TESTER

Measures drift and f.m. in frequency bands between 1120 and 10,800 mc. Also at 30 mc and at 30 kc to 230 kc. Direct reading, continuous display. Provision for oscilloscope display.

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X-band deviation measurements to 10 cps.
Measurable f-m deviation to 1000 cps.
Max. measurable rate of drift: 300 kc/sec/sec
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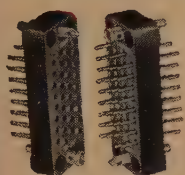
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AVAILABLE IN 7, 12(8-4),
14, 18, 20, 21, 26, 34, 41, 50,
75 contacts.

DOUBLE-LEAD MINIATURE SCREW-LOCK



**REMEMBER,
TWICE THE
SPEED WITH
DOUBLE
LEAD!**

AVAILABLE IN
7, 12(8-4), 14,
18, 20, 21, 26,
34, 41, 50, 75
contacts.

MI-SL SOLDER	MI-SL-SDL SOLDERLESS
AMP. 37 Term	

SUB-MINIATURE SCREW-LOCK



AVAILABLE IN
7, 11, 14, 20,
26, 34 con-
tacts. Also
available, SMI
rack and
panel series.

SMI-SL SOLDER	SMI-SL-SDL SOLDERLESS
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MINIATURE HEXAGONAL



MH SOLDER	MH-SDL SOLDERLESS
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AVAILABLE
IN 4, 5, 7,
9 contacts.

The above items are covered by U. S. Pat.
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SPECIAL FEATURES: Side or rear cable entrance hoods
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- Over 1500 stock sizes and types for standard and special
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POWER

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980 SOLDER	980-SDL SOLDERLESS
AMP. 53 Term	

AVAILABLE IN
12, 18, 24, 34
contacts.

HEAVY DUTY DOUBLE-LEAD SCREW-LOCK



980-SL SOLDER	980-SL-SDL SOLDERLESS
AMP. 53 Term	

AVAILABLE IN
12, 18, 24, 34
contacts.

HEAVY DUTY



990 SOLDER	990-SL-SDL SOLDERLESS
AMP. 53 Term	

AVAILABLE IN
7, 10, 15, 18 long
or short (S) con-
tacts.

HEAVY DUTY DOUBLE-LEAD SCREW-LOCK

AVAILABLE IN
7, 10, 15, 18
contacts.



990-SL SOLDER	990-SL-SDL SOLDERLESS
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SERIES UPCR (printed card receptacle)



6, 10, 15, 18, 22
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row for 1/16 cards
—wire solder.
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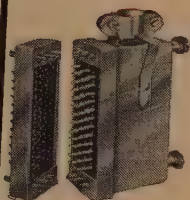


UPCC-M
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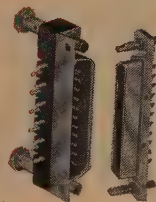
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AVAILABLE IN 34,
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Modular design
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contacts per unit.

PRINTED CIRCUIT SCREW LOCK CONNECTOR



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- servo analyses
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- analyzing characteristics of AM, FM and pulsed signals
- checking telemetering or carrier current systems for distortions, hum, noise, microphonics, interference, channel spillover
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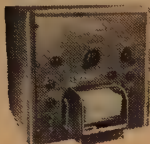
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These automatic heterodyne scanning receivers present a visual display of both the frequency and amplitude of the waveform content of an electrical voltage or any parameter which is converted into an electrical voltage. Their easily read panoramic display provides a rapid, reliable method of detecting defects, checking variations, making adjustments, testing production, improving product design and solving many other measurement problems. A broad range of instruments satisfies a great variety of applications, which are even further extended by combining carefully designed accessory equipments with basic analyzers to form instrumentation systems which offer unique advantages.



Model LF-2, Subsonic (0.5 cps-2250 cps), features 0.1 cps to 20 cps resolution, 40 db dynamic range, six scanning widths, permanent ink-on-paper recordings, high stability.



Model LP-1a, Sonic (40 cps-20 kc), features both linear and log amplitude scales, 60 db dynamic range, directly read, broad logarithmic frequency scale and a three-step scanning range selector and tuning control which permits selection and magnification of linear segments 200, 1000 or 5000 cps wide centered anywhere between 0 and 20 kc for sharp detailed analysis of components closely spaced in frequency. Optional companion recorder allows permanent ink-on-paper recordings over extended periods.



Model SB7aZ, Ultrasonic (1 kc-300 kc), features both linear and log amplitude scales, exceptionally stable displays, continuously variable sweepwidth, center frequency and resolution controls which facilitate overall observation of a band 200 kc wide or highly detailed analysis of selected narrow bands.



Panalyzors and Panadaptors (RF, VHF and UHF) feature continuously variable sweepwidths, resolution and scan rates; long or short persistence displays, linear or log amplitude scales. Offer the advantages of wide scan display yet permit examination of closely adjacent signals. Special features vary with model and type selected. 5 models in 23 different types fulfill almost every need from low-cost general purpose instruments to those for highly special applications.



Model SPA-1, Microwave (50 mc-4000 mc), features two tuning heads (RF-2 from 50 mc to 250 mc; RF-3 from 220 mc to 4000 mc in five ranges) with a single tuning control dial having an accuracy of $\pm 1\%$, continuously variable resolution, sweep rate and differential markers, —100 dbm sensitivity.

Panoramic Accessory Instruments



Models G-2 and G-3, Sweep Generators, convert the LP-1a and SB-7aZ, respectively, into single line response curve tracers, discriminate against noise and hum, show response to fundamental frequency only, and assure accurate frequency response measurements.



Model TW-1, Triangular Wave Generator, operates together with both sonic and ultrasonic analyzers and sweep generators to produce a continuously variable (0.05 to 60 per sec.) linear bi-directional time base enabling the establishment of the proper scan rate to insure presentation of a true response.



Model SW-1, Signal Alternator, permits observation of two independent inputs either for comparison or calibration purposes. With high persistence indicators, alternate displays can be viewed simultaneously thus allowing a very high degree of readability on small differences in frequency and/or amplitude.

Panoramic Special Instruments

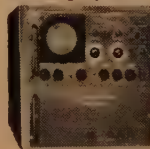
Model TFA-1, Time-Frequency Analyzer, in combination with one of the analyzers (subsonic through microwave) or telemetering indicator, provides a complete history of the time occurrence of transient waveform components, in addition to frequency and amplitude information.

Model PDA-1, Spectral Power Density Analyzer, used in combination with one of the analyzers (subsonic through microwave) measures the spectral power density of random information by translating transient voltage amplitudes of a complete data sample into an integrated continuous plot of total power vs. frequency.

Model SF-1, Synchronous Frequency Analyzer, has many application possibilities and is excellent for dynamic balance analysis. Automatically tracks a frequency component derived from a rotating or oscillating source and provides simultaneously a visual plot of component frequency vs. component amplitude.

Panoramic Telemetering Test Instruments

These instruments are specifically designed to provide a simple, reliable, almost instantaneous method of checking FM/FM Telemetering Systems.



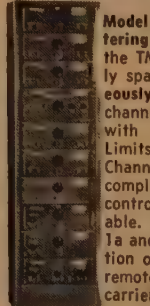
Model TMI-1a, Telemetering Indicator, provides a visual display of the frequency and amplitude of composite signal components. Scans spectrum logarithmically from 350 cps to 85 kc, or linearly, any 100 cps to 20 kc segment centered anywhere between 400 cps and 70 kc. Permits measurement of spurious products down 40 db. Features 20 db linear and 40 db log amplitude scales; 2 mv full scale sensitivity; automatic optimum resolution.



Model TMC-1 Telemetering Subcarrier Deviation and Three Point Calibrator, is a dual purpose instrument, which: (1) Sequentially furnishes upper limit, center and lower limit frequencies channel by channel for all RDB channels as outputs for discriminator calibration. Limits are $\pm 7.5\%$ for all channels and $\pm 15\%$ for upper five, others optional, with an accuracy of 0.02%. Channel switching can be either manual or automatic. (2) Establishes maximum deviation limits and center frequency of subcarrier oscillators. An internal signal switcher permits alternate display, on the screen of the TMI-1a, of subcarrier vs. calibrating marker from the built-in channel selector of the TMC-1 which automatically establishes proper center frequency and sweepwidth of the selected channel for comparison with deviation or spread of subcarrier.



Model TMC-307, Seven Point Telemetering Frequency Calibrator, sequentially furnishes seven equally spaced frequencies for all RDB channels singly, as outputs for discriminator calibration. Limits and accuracy are the same as the TMC-1. Switching can be either manual or automatic. Can also be used in combination with the TMI-1a and the CHS-1 (Channel Selector), for multipoint calibration of subcarrier oscillators. 0.02% accuracy.



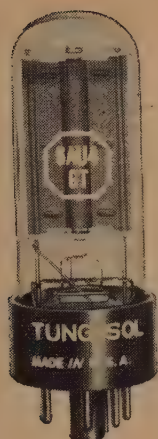
Model TMC-211, Simultaneous Eleven Point Telemetering Frequency Calibrator, differs markedly from the TMC-1 and TMC-307 in that it provides 11 equally spaced frequencies for all RDB channels simultaneously as outputs for discriminator calibration. All channels can be sampled in as little as 2 3/4 seconds with an accuracy of 0.002%, stability of .0005%. Limits are the same as the TMC-1 and TMC-307. Channel switching may be manual, semi-automatic or completely automatic. On automatic, switching is controlled synchronously and cycling time is adjustable. Can also be used in combination with the TMI-1a and the CHS-1, for simultaneous multipoint calibration of subcarrier oscillators. The instrument can be remotely controlled from a central station with subcarrier channels diverted to various locations.



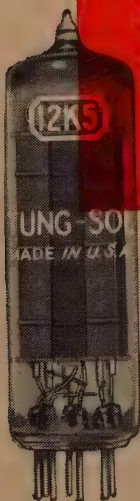
Model CHS-1, Telemetering Channel Selector, automatically establishes the correct center frequency, sweepwidth and resolution for any RDB channel selected for display on the screen of the TMI-1a. An internal signal switcher permits alternate display of subcarriers vs. external calibrating markers, available from the TMC-307, TMC-211 or other source, for visual comparison of linearity or spread of subcarrier.

10 South Second Ave., Mount Vernon, N. Y. Phone: MOUNT VERNON 4-3970
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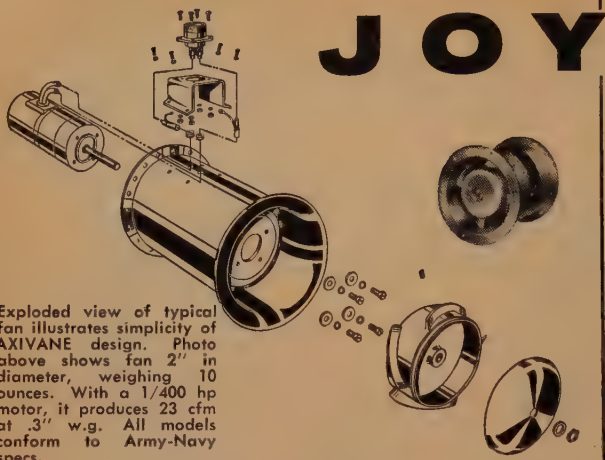


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Exploded view of typical fan illustrates simplicity of AXIVANE design. Photo above shows fan 2" in diameter, weighing 10 ounces. With a 1/400 hp motor, it produces 23 cfm at .3" w.g. All models conform to Army-Navy specs.

JOY

AXIVANE FANS

for electronic cooling

Joy Manufacturing Company has developed over 240 models & 1300 designs of small, powerful fans for use in electronics. Each fan can be modified for exact conformation to any specifications. Aluminum and magnesium one-piece castings provide minimum weight, yet enable fans to withstand severe shock and vibration. Vaneaxial design assures compactness, space saving and provides high capacity performance with low horsepower expenditure. Motors meet minimum vibration standards for exact balance tolerance in motor driven fans. All rotors are dynamically and statically balanced. Direct drive is an important built-in (but readily accessible) feature.

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- Electronic equipment.
- Radio gear.

- Magnetrons.
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- Counter measures.
- Providing air for many unusual electronic applications.
- Spot cooling of electronic tubes where local high temperatures arise.
- Heat removal from pressurized or hermetically sealed units.

SPECIAL 60 CYCLE A. C. FANS

Model	Capacity CFM	Pressure Inches W.G.	Weight Pounds	Diameter Inches	Horse Power	Speed RPM
AVR47-37D952	65	0.25"	3.0	4.75	.005	3,200
AVR102-95D838	200	1.5"	45.0	10.25"	.167	3,450/2,875
I-6-4-32A	200	.25"	7.5	6.0"	.013	3,450
AVR75-55D517	300	0.8"	14.0	7.5"	.066	3,200

400 CYCLE A. C. FANS

Model	Capacity CFM	Pressure Inches W.G.	Weight Pounds	Diameter Inches	Horse Power	Speed RPM
AVR20-12D802	20	0.5"	.625	2.0"	.0025	10,500
AVR27-20D974	45	1.0"	2.0	2.75"	.02	11,000
AVR42-35D794	60	5.0"	6.25	4.25"	.083	11,500
AVR35-27D976	60	5.0"	4.5	3.5"	.083	11,500
AVF50-35D844	100	0.5"	3.5	5.0"	.02	5,600
AVR40-30D998	100	3.0"	3.0	4.0"	.083	11,400
AVR45-32D1018	140	3.0"	6.0	4.5"	.125	11,300
AVR47-32D732	200	1.0"	4.75	4.75"	.066	7,400
AVR50-35D1017	200	4.0"	6.5	5.0"	.25	11,300
AVR50-30D501	200	1.5"	5.25	5.0"	.09	7,400
AVR45-32D823	200	1.7"	4.5	4.5"	.1	7,500
AVR47-32D869	255	0.25"	5.8	4.75"	.066	7,400
AVR55-40D773	300	6.0"	9.0	5.5"	.45	11,400
AVR55-45D809	300	6.5"	11.5	5.5"	.70	11,275
AVF65-40D804	300	3.7"	8.0	6.5"	.333	7,500
AVR60-35D738	400	5.0"	9.0	6.0"	.50	11,400

27 VOLT D. C. FANS

Model	Capacity CFM	Pressure Inches W.G.	Weight Pounds	Diameter Inches	Horse Power	Speed RPM
AVR20-12D802	20	0.5"	.68	2.0"	.0025	10,500
AVFR35-42D1014	20	4.75"	4.5	3.5"	.083	14,200
AVF2R35-27D815	25	6.0"	3.5	3.5"	.050	12,000
AV3.5-2.75-120D	60	5.0"	5.0	3.5"	.083	14,200
AV40-32D629	80	5.0"	5.5	4.0"	.083	14,200
AVR52-45D702	120	5.0"	6.25	5.25"	.166	10,000
AVR50-32D647	175	5.0"	9.50	5.0"	.30	12,000
AVR45-30D714	200	1.0"	5.0	4.5"	.06	18,500
AVR50-30D501	200	1.5"	5.25	5.0"	.075	6,800
AV6.5-.4-8000DX4	250	6.5"	9.0	6.5"	.5	8,800
AV65-52D830	300	6.5"	9.75	6.5"	.5	8,800
AVR55-45D809	300	8.0"	9.1	5.5"	.6	11,200
AV6.5-4-8000DX3	350	5.0"	7.5	6.5"	.5	8,800
AV-0406.5-5D	400	5.0"	7.75	6.5"	.5	8,800
AVR80-65D786	425	7.0"	80.0	8.0"	.75	7,500
AVR77-55D641	475	4.75"	16.0	7.75"	.5	7,000
AVR80-65D591	600	6.0"	28.0	8.0"	1.3	9,750
AV-8-4-50D	750	1.0"	11.5	8.0"	.20	5,000
AV-8-4-0.75-DX2	750	4.5"	14.25	7.75"	.75	8,400

Design specifications for above models: A&N

The models listed in the specification tables are at basic design only. Listed weights will vary with the type of casting and accessories. Capacities shown are at design duty only. Performance curves, illustrating the complete duty range, are available for each model and version of each model.

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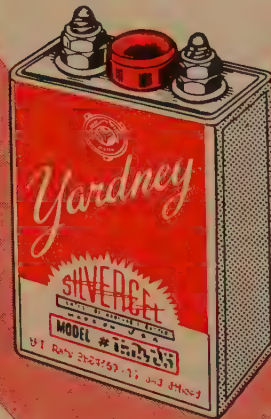
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Sikorsky

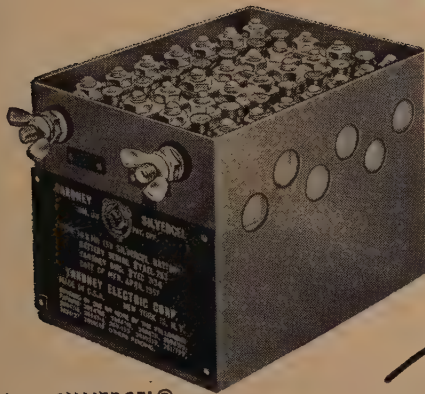
Convair

and many

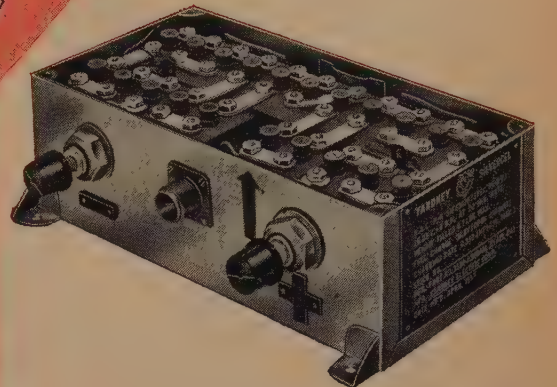
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And to solve your power problems . . . or for assistance in checking your battery requirements . . . please contact our Applications Engineering Department (AED) for Free consultation service.

Table of Yardney High-Rate Models

Yardney Silvercel	Nominal Capacity	Peak Pulse Discharge	Weight (ounces)	H. (all in inches)	W. (all in inches)	D. (all in inches)	Typical Applications
HR 01	0.1 AH	3 amps	0.15	1.38	.61	0.20	Instrumentation
HR 05	0.5 AH	30 amps	0.70	1.52	1.10	0.55	Telemetering
HR 1	1.0 AH	45 amps	0.79	1.98	1.08	0.54	Motor-Driven Recorders
HR 3	3.0 AH	75 amps	2.98	2.86	1.72	0.59	Tow-Target Drones
HR 5	5.0 AH	75 amps	4.24	2.95	2.08	0.80	Photo-Flash, Camera Drives, Portable Lights, Missile Guidance
HR 10	10 AH	220 amps	7.88	4.78	2.32	0.74	Helicopter Starting
HR 15	15 AH	350 amps	9.70	4.93	2.31	.81	Missile Power Sources and Servo Controls
HR 20	20 AH	500 amps	13.82	4.28	2.05	1.73	Torpedo Propulsion
HR 21	20 AH	500 amps	15.02	7.56	2.31	0.81	Portable TV
HR 40	40 AH	600 amps	23.20	7.0	3.25	0.99	Aircraft Power Sources
HR 60	60 AH	1000 amps	31.85	4.50	2.75	2.38	Tow-Target Drones
HR 85	100 AH	1900 amps	52.30	9.44	2.81	1.81	Portable Power Station
HR 90	100 AH	1800 amps	51.40	7.0	3.25	2.16	Portable Power Station
HR 100	100 AH	2000 amps	44.10	4.78	3.43	2.79	
HR 200	200 AH	3000 amps	102.50	11.31	5.87	1.31	
HR 300	300 AH	3500 amps	148.00	17.5	4.19	1.78	

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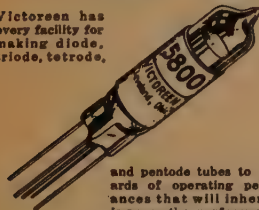
TYPE	RESISTANCE	TOLERANCE %	VOLTAGE COEF. %/V	TEMP. COEF. %/°C	MAX. W.V.	WATTAGE	MAX. TEMP. °C	DIMENSIONS			LEAD DIAM.
								A (MAX)	B (MAX)	C (MIN)	
RX1	10 ⁶ to 10 ¹¹ ohms	2.5, 10 Note 1 & 7	-0.03 Note 4	±0.15	1000	Note 5	100	1 1/2	.20	1	.020 ±.002
RX2	1 Meg to 50 Meg.	1.2, 5, 10, 20 Note 2	-.0002	-0.08	3000	1	250	2	.413	1 1/2	.022 ±.005
RX3	1 Meg to 200 Meg.	1.2, 5, 10, 20 Note 3	-.0002	-0.08	10,000	3	200	3 1/4	.413	1 1/2	.022 ±.005
RX4	200 ohm to 1 Meg.	1.2, 5	-.0002	-0.06	800	5	300	2	.413	1 1/2	.022 ±.005
RX5	200 ohm to 200 Meg.	1.2, 5 Note 6	-.0002	-0.06	2000	10	300	3 1/4	.413	1 1/2	.022 ±.005
RX6	100 ohm to 500 K.	1.2, 5	-.0002	-0.06	180	.5	250	3/4	.186	1 1/2	.016 ±.002
RX7	100 ohm to 1 Meg.	1.2, 5	-.0002	-0.06	600	.5	200	1 1/2	.187	1 1/2	.016 ±.002
RX8	100 ohm to 10 Meg.	1.2, 5	-.0002	-0.06	750	2	200	1 1/2	.240	1 1/2	.020 ±.002

NOTE 1: 2% tolerance available only below 10¹¹ ohms.
 2: 1% and 2% tolerance available only below 20 meg.
 3: 1%, 2% and 5% tolerance available only below 100 meg. 4: below 10¹¹ ohms.
 5: RX1 wattage is reciprocal of resistance in megohms.
 6: 1%, 2% and 5% available only below 1 meg.
 7: 5% available only below 5 x 10¹¹ ohms.



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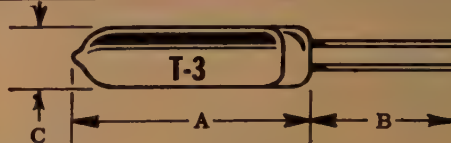
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CORONA VOLTAGE REGULATORS



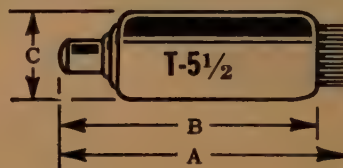
R.E.T.M.A. TYPE

TYPE	NOM.	TOLERANCE	NOM. TEST PT.	CURRENT IN μ A			REGULATION	DIMENSIONS		
				MIN.	MAX.	PEAK		A	B	C
9950	700 V	± 15 V	25 μ A	5	100	150	14 V per 100 μ A	1.825 Max.	1 1/4 Min.	.400
5841	900 V	± 18 V	25 μ A	5	100	150	18 V per 100 μ A	1.825 Max.	1 1/4 Min.	.400
1143	1200 V	± 24 V	25 μ A	10	100	150	24 V per 100 μ A	1.825 Max.	1 1/4 Min.	.400
6119	2000 V	± 100 V	25 μ A	15	100	150	40 V per 100 μ A	1.825 Max.	1 1/4 Min.	.400



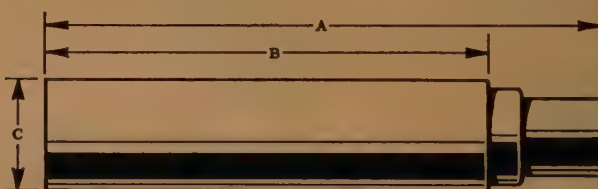
T-3 SIZE

TYPE	NOM.	TOLERANCE	NOM. TEST PT.	CURRENT IN μ A			REGULATION	DIMENSIONS		
				MIN.	MAX.	PEAK		A	B	C
GV3B-400	400 V	± 10 V	80 μ A	5	150	300	10 V per 150 μ A	1.880 Max.	1 1/4 Min.	.400
GV3B-500	500 V	± 10 V	80 μ A	5	100	150	12 V per 100 μ A	1.880 Max.	1 1/4 Min.	.400
GV3B-600	600 V	± 10 V	80 μ A	5	100	150	13 V per 100 μ A	1.880 Max.	1 1/4 Min.	.400
GV3B-700	700 V	± 15 V	80 μ A	5	100	150	15 V per 100 μ A	1.880 Max.	1 1/4 Min.	.400
GV3B-800	800 V	± 15 V	80 μ A	5	100	150	15 V per 100 μ A	1.880 Max.	1 1/4 Min.	.400
GV3A-900	900 V	± 15 V	80 μ A	10	250	350	25 V per 250 μ A	1.880 Max.	1 1/4 Min.	.400
GV3A-1000	1000 V	± 30 V	80 μ A	10	250	350	30 V per 250 μ A	1.880 Max.	1 1/4 Min.	.400
GV3A-1200	1200 V	± 30 V	80 μ A	10	250	400	40 V per 250 μ A	1.880 Max.	1 1/4 Min.	.400
GV3A-1500	1500 V	± 30 V	80 μ A	15	300	500	50 V per 300 μ A	1.880 Max.	1 1/4 Min.	.400
GV3A-1800	1800 V	± 40 V	80 μ A	15	300	500	60 V per 300 μ A	1.880 Max.	1 1/4 Min.	.400
GV3A-2000	2000 V	± 50 V	80 μ A	15	300	500	75 V per 300 μ A	1.880 Max.	1 1/4 Min.	.400



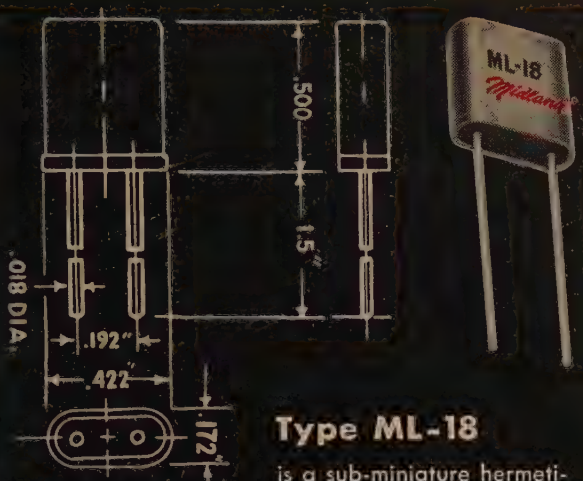
T-5 1/2 SIZE

TYPE	NOM.	TOLERANCE	NOM. TEST PT.	CURRENT IN μ A			REGULATION	DIMENSIONS		
				MIN.	MAX.	PEAK		A	B	C
GV5B-750	700 V	± 30 V	100 μ A	10	250	350	25 V per 250 μ A	2.70 Max.	2.47 Min.	.750
GV5B-800	800 V	± 30 V	100 μ A	10	300	500	30 V per 300 μ A	2.70 Max.	2.47 Min.	.750
GV5B-1000	1000 V	± 30 V	100 μ A	10	300	500	35 V per 300 μ A	2.70 Max.	2.47 Min.	.750
GV5A-1250	1200 V	± 34 V	100 μ A	15	400	600	40 V per 400 μ A	2.70 Max.	2.47 Min.	.750
GV5A-1600	1600 V	± 50 V	100 μ A	15	800	900	40 V per 800 μ A	2.70 Max.	2.47 Min.	.750
GV5A-2000	2000 V	± 65 V	100 μ A	20	800	1000	50 V per 800 μ A	2.70 Max.	2.47 Min.	.750
GV5A-2500	2500 V	± 75 V	100 μ A	25	1000	1200	40 V per 1000 μ A	2.70 Max.	2.47 Min.	.750
GV5A-3000	3000 V	± 90 V	100 μ A	30	1000	1200	50 V per 1000 μ A	2.70 Max.	2.47 Min.	.750
GV5C-4000	4000 V	± 120 V	100 μ A	30	750	1000	80 V per 750 μ A	2.70 Max.	2.47 Min.	.750
GV5C-5000	5000 V	± 150 V	100 μ A	30	600	1200	100 V per 600 μ A	2.70 Max.	2.47 Min.	.750
GV5C-6000	6000 V	± 180 V	100 μ A	30	600	1200	150 V per 600 μ A	2.70 Max.	2.47 Min.	.750



METAL

TYPE	VOLTAGE RANGE	TOLERANCE	NOM. TEST POINT	CURRENT		REGULATION 100-1000 μ A	DIMENSIONS		
				MAX.	MIN.		A	B	C
M105B	5 KV-10 KV	± 500 V	500 μ A	1000 μ A	50 μ A	7 1/2%	6 1/8	5	1 1/4
M105	10 KV-20 KV	± 500 V	500 μ A	1000 μ A	100 μ A	10%	6 1/8	5	1 1/4
M106	15 KV-30 KV	± 500 V	500 μ A	1000 μ A	100 μ A	7%	6 1/8	5	1 1/4
M125	20 KV-25 KV	± 500 V	500 μ A	1000 μ A	100 μ A	10%	7 1/8	6	1 1/4
M125	20 KV-27 KV	± 500 V	500 μ A	1000 μ A	100 μ A	7%	6 1/8	5	1 1/4

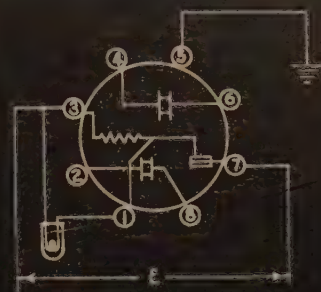


Wire pin diameter:
 $.017 \pm .001$
 Wire pin length:
 $1.500 \pm .062$
 Fixed pin diameter:
 $.040 \pm .002$
 Fixed pin length:
 $.234 \pm .030$

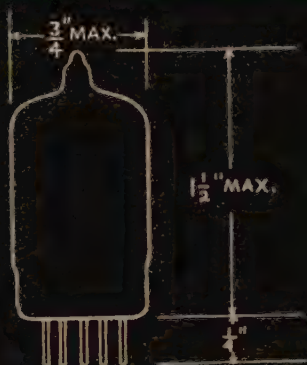
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 Pin length: $.250 \pm .030$

Type ML-2G

a new all glass, 7-pin miniature.

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Pin diameter: $.050 \pm .002$
 Pin length: $.238 \pm .010$
 $-.015$



Type ML-13

Range: 4 kc — 300 kc
 This unit is hermetically sealed. The can is taller to accommodate the low frequency crystal blank.

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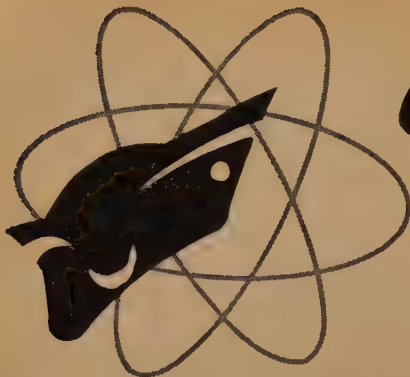


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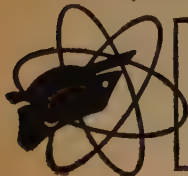
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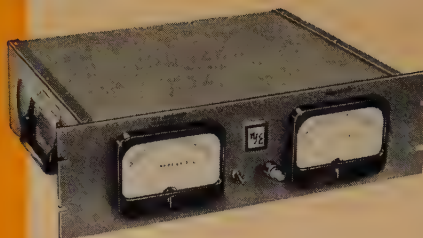
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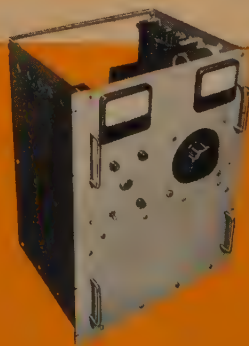
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First Class Permit No. 56, Kenilworth, New Jersey

NJE CORPORATION

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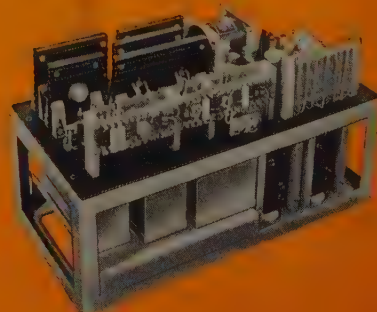


BRUTE FORCE

The widest line of Selenium, Silicon, and Germanium-rectifier supplies, with and without line regulators and/or ZERO-LAG. Fast custom service. Over a million dollars worth of NJE semi-regulated supplies are in service!

CUSTOM IS STANDARD AT NJE

Our production is geared to custom work and a short delivery cycle. Over 75% of our activity is custom-designed. Everything under one roof: sheet metal, finishing, transformer design and production, engineering, drafting, assembly, and test. Write for our "Custom Design File".



Fenwal Precision Temperature Control and Detection Devices

CONTROL ELEMENTS OF THERMOSWITCH® UNITS

In Standard Types and Sizes, also Midget and Miniature Units, control is based on a differential expansion principle, simple and unique. A single-metal shell always in direct contact with the medium being controlled, contracts or expands instantly with temperature changes, making or breaking electrical contacts.

In Snap-Action Units, control is provided by an expandable liquid acting on a bellows assembly.

The bellows motion, actuated by volume changes of the liquid, operates the switch contacts through a push rod. In Fenwal units, the liquid is outside the bellows, adjacent to the shell, for shorter heat transfer path and greater sensitivity.

In All Units each control setting is easily adjustable. High resistance to shock and vibration is characteristic, together with hermetic-sealing and many different temperature ranges.

INDUSTRIAL UNITS

A standard, cartridge type THERMOSWITCH unit. Compact, self-contained in a wide variety of mounting heads for temperatures ranging from -100°F to $+400^{\circ}\text{F}$, or $+100^{\circ}\text{F}$ to $+600^{\circ}\text{F}$. Also furnished in higher ranges Bulletin MC-135.

ELECTRONIC CONTROLLERS

Thermistor Indicator Controller (Series 560). For industrial or laboratory applications. Sensitivity 0.25% of scale range. Temperature ranges -100°F to $+600^{\circ}\text{F}$. Available in single or dual range models. Bulletin MC-140.

Unit Thermistor Controls (Series 530). For all modern control equipment, systems and processes. Utilizes temperature-resistance property of thermistors in a new "electronic building block" concept of precision temperature control. Bulletin MC-133A.

MIDGET AND MINIATURE UNITS FOR TIGHT SPOTS

Midget Units. Outside stainless steel shell diameter of $\frac{1}{4}"$ provides high sensitivity and resistance to vibration, assuring accurate control under severest conditions. Temperature range: -50°F to $+500^{\circ}\text{F}$. Bulletin MC-124.

Miniature Units. Sugar-lump size, but with the same stainless steel shell and efficient performance of the Midget. Temperature range: -20°F to $+275^{\circ}\text{F}$. Available in adjustable or hermetically-sealed types. Bulletin MC-124.

SNAP-ACTION UNITS

Single and Dual Types. Single has one snap-switch, dual has two. For high current applications, controls loads up to 20 Amps, 125 Volts D.C., or 10 Amps, 250 Volts A.C. without relays. Liquid-filled sensing element assures minimum heat transfer path, fast response, control within $\pm 2^{\circ}\text{F}$. Thousands of variations possible. Temperature ranges: from -75°F to $+300^{\circ}\text{F}$. Single Type Bulletin MC-120. Dual Type Bulletin MC-143.

NEW TEMPERATURE INDICATING CONTROLLERS

The New Series 541 bulb-and-capillary controllers offer single or dual switch control, choice of four snap-switch types and four temperature ranges: -150°F to $+200^{\circ}\text{F}$, 50°F to 200°F , 50°F to 400°F and 50°F to 700°F . Special ranges available on request. Corrosion-proof capillaries and bulbs assure long life and easy operation — in over 576 design variations for temperature control problems. Bulletin MC-139.

For complete information about Fenwal devices, or about modifications for special applications, write us.



INCORPORATED

2013 Pleasant Street, Ashland, Massachusetts

Fenwal Controls Temperature . . . Precisely

POTTER engineered

For more than twelve years POTTER electronic and electro-mechanical equipment has been setting new standards of accuracy and reliability in the aviation and allied industries.

These precision instruments are available to discriminating engineers who demand quality, accuracy and reliability at prices their budgets can afford.

COUNTERS AND COMPUTERS

SERIES 21—General Purpose Industrial Counters

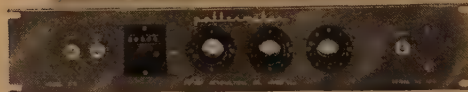
High-frequency counter/totalizers for counting production line outputs or events; linear measurement or volumetric measurement of liquids or gases. May be operated directly from photoelectric, magnetic or mechanical transducers to count by units, dozens or grosses.

Input signal—0-5000 pps (pulse), 5-5000 cps (sine wave); 7.5 mv @ 10 cps, 120 mv @ 5000 cps.

Output Intelligence—8-digit capacity.

\$375—rack-mounted

\$395—with case



SERIES 24—Preset Counters & Controllers

Four-decade predetermined pulse counters provide totalizing, batching or control of fluids, solids or random events. Control filling of barrels, trucks or tank cars to exacting accuracy. Indicate: predetermined count, quantity remaining to be counted, number of batches or cycles completed, cumulative count total. Operate from photoelectric, magnetic or mechanical transducers without amplifiers. Remote reset for automatic process control.

Input Signal—0-3500 pps (pulse) 5-3500 cps (sine wave); 10 mv @ 10 cps 300 mv @ 4000 cps.

Output Intelligence—0-9,999 x10 and x100 counts.

\$750—rack-mounted

\$800—with case



SERIES 25—Computing or Translating Totalizers

Eight-digit computing counters for translating and totalizing any digital input into any desired form of digital readout. Can convert volumetric totals to mass totals, U. S. to Imperial gallons, volumetric or mass totals to dollars, etc.

Input signal—10-5000 cps; 10 mv @ 18 cps, 150 mv @ 5000 cps min., 5 volts max. (pulse or sine wave).

Output Intelligence—up to 99,999,999 counts, ± 1 count.

\$750—rack-mounted

\$800—with case



SERIES 43—Digital Flow Indicators or Translating Counters

Four-digit decimal counters for integrating pulse train by sampling count for predetermined time. Used with POTTER flowmeters to directly indicate—in large $\frac{3}{4}$ " numbers—flow rate in any desired units, as gph or ppm, or changes in flow rates as a percentage of original rate. May be used to indicate the ratio of two flows to 3-place accuracy, as well as total flow. Used with other transducers such as tachometer generators or pressure transducers.

Input Signal—5-10,000 cps; 10 mv @ 10 cps, 120 mv @ 5000 cps.

Output Intelligence—0-9,999 counts ± 1 count.

\$1175—rack-mounted or with case



SPECIAL SYSTEMS FROM STANDARD COMPONENTS

AVOID—High engineering charges . . . Long design delays

Our systems engineering staff specializes in combining and modifying standard, off-the-shelf, items into well-integrated, high-accuracy measurement and control systems TO SPECIFICATIONS.

"POTTER engineering" is at your service for custom design and development to meet your application requirements, including MIL specifications. Any of the above instruments can be modified to your specifications at a slight additional charge.

FREQUENCY METERS

SERIES 11 — General purpose, High precision, Converters

Compact, multi-channel converters and meters for volumetric measurement of fluid or gas flows, or with automatic specific gravity compensation; also direct measurement of specific gravity, control ratio of two flows, or difference between two flows or frequencies. Automatic or manual range control. Can be mounted within any null-balance instrument becoming an integral part of the instrument, making extra panel space unnecessary.

Input signal — 10-400 cps; 7.5 mv @ 20 cps, or to your specifications.

Precision — Circuit accuracy, linearity & stability: $\pm 0.1\%$.



SERIES 19 — Miniaturized Panel Indicators

Completely self-contained, 3-inch frequency indicators for use with digital transducers to indicate flow rate of liquids or gases, frequencies, or rotary motion. Wide-angle indicator provides 300% greater scale length than similar 3-inch panel meters.

Input signal — 10-400 cps; 10 mv @ 10 cps, 20 mv @ 400 cps.

Weight — 1 lb. 10 oz.

\$450



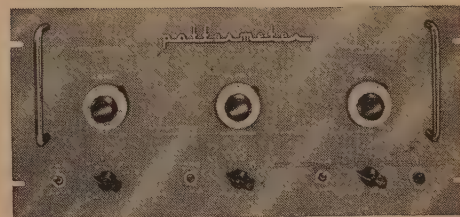
SERIES 41 — Three-channel Frequency Meters

Rack-mounted converters with full-scale frequency range of 50-3200 cps permitting handling of 3 simultaneous channels of information for direct indication or recording. Will measure volumetric or gravimetric flow or, when used with a suitable tachometer head, rotary motion. Also available in single and 2-channel versions.

Input signal — 10-3200 cps; 1 mv/cycle.

Output signal — 1 milliampere into 50-ohm load.

\$2500



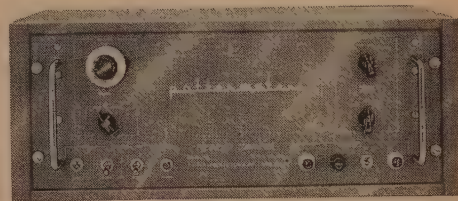
SERIES 42 — High-frequency, Low Time-constant Converters

For use in transient recording. Especially designed to drive galvanometers with up to 1600 cps response, such as Consolidated, Heiland, Sanborn, Brush, or the new "Visicorder".

Input signal — 250-2500 cps; 30 mv @ 250 cps.

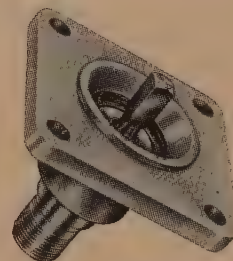
Response time — 0.75 milliseconds @ 1000-2500 cps, 1.5 milliseconds @ 500-1000 cps, 4 milliseconds full-range.

\$1500



TACHOMETER GENERATORS

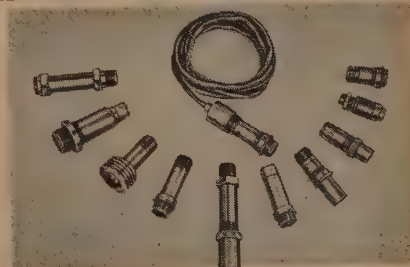
Measure speeds of agitators, blowers, compressors, conveyors, engines, hydraulic rams, looms, machine tools, mills, mixers, printing presses, pumps, wire machines, etc. Can be used to energize counters, frequency meters, over-speed or under-speed controls or alarms, speed recorders etc. Economical conversion up to 20,000 RPM into analog or digital output directly proportional to rotation, in any specified multiple. High or low impedance, high-voltage units for telemetering applications. Easily adapted to difficult configuration; auxiliary drive pad for accessory connection.



PICK-UP COILS

Measure: Pieces, Proximity, Motion, RPM, Sequences, Angular position, Linear position, Speed variation.

Minimum-size, magnetic and reluctance pick-up coils with optimum high output over a wide ambient temperature range (-325°F. to 850°F.) Over 150 stock units to meet any application requirements.



POTTER
Engineered

For complete technical data,
write or call TODAY.

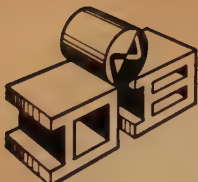
POTTER AERONAUTICAL CORP.

Electronic Division

U. S. Route #22; Union, New Jersey • Murdock 6-3010

Regional Offices: Atlanta, Georgia; Dayton, Ohio;
Oklahoma City, Oklahoma; Malibu, California.

When ordering or seeking information
please mention Electronics Buyers' Guide.



FIRST in MICROWAVE and

Effective Date March 15, 1957
Prices F. O. B. Pasadena, Calif.

Prices subject to change without notice.

Prices F. O. B. Pasadena, Calif.	DBA 60-90 RG-99/U		DBB 50-75 RG-98/U		DBC 33-50 RG-97/U		DBD 26.5-40 RG-96/U		DBE 18-26.5 RG-93/U		DBF 12-14.8 RG-91/U		DBG 8.2-12.4 RG-92/U		DBH 7.05-10.0 RG-91/U		DBJ 5.85-8.2 RG-90/U		DBK 3.95-5.85 RG-89/U		DBL 2.6-3.95 RG-88/U	
Size Designation Frequency Band in KMC Waveguide Nomenclature	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price
Tube Mount Klystron Tube Mount Noise Tube Mount with Tube																						
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*Sections One Foot Long or Shorter.

All instruments sizes A through E solid coin silver waveguide.

When ordering or seeking information
please mention Electronics Buyers' Guide.

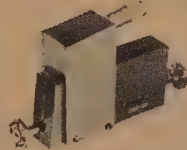
June, 1957 — MID-MONTH — ELECTRONICS BUYERS' GUIDE

ULTRAMICROWAVE equipment

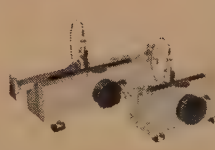
it's a
fact

that D-B offers
the most complete
line of dependable
equipment

Here's the newest equipment for 2.6 to 140 KMC—by DeMornay-Bonardi, leaders in microwave instrumentation for 16 years. This advanced line offers you the ultimate in precision, dependability and operating ease. Major items are shown. Deliveries on most items are running 30 days. Ask for latest catalogue containing complete data.



DB-410 Precision Attenuator 0-40 DB



DB-825 Standing Wave Detector



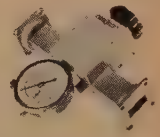
DB-420 Flap Attenuator 0-20 DB



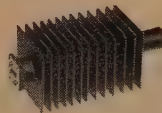
DB-111 Klystron Tube Mount Pressurized, Shielded



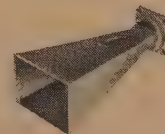
DB-350 Crystal Multiplier



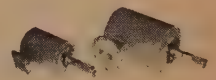
DB-430-1 Calibrated Attenuator 0-40 DB



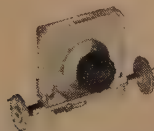
DB-460 High Power Termination



DB-520 Standard Gain Horn



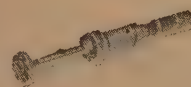
DB-715 Cavity Wavemeter Sealed, Temperature Compensated



DB-915 Phase Shifter 180° Minimum



DB-919 Variable Stub Tuner



DB-969 Movable Short



DB-979-1 E-H Plane Tuner

RF WATTMETERS

DUMMY LOAD RESISTORS

VSWR METERS

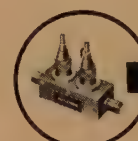
MicroMatch is the registered trade name which identifies a complete line of M. C. Jones Electronics Co., Inc. R. F. Power and VSWR measuring instruments.

These instruments contain a patented circuit designed to produce an output essentially independent of frequency. They cover the frequency range of 0.5 to 4000 mcs. and power levels of 10 milliwatts to 120 kilowatts.

The R. F. Power and VSWR instruments are rugged field and laboratory type complete measuring equipment, consisting of both coupler and indicating units.

The DC and RF output coupler units only are sold principally to manufacturers who incorporate these units directly into government or commercial type transmitters.

Because they are made in quantity to the highest government and commercial standards, MICROMATCH instruments combine the highest quality with extremely low cost.



RF POWER and VSWR INSTRUMENTS

Model No.	Frequency Range (mcs.)	Power Range Incident & Reflected (watts)	RF Connectors and Impedance
261**	0.5 - 225	0 - 1000	Type 83-1R 52 ohms
262	-	0 - 1000 (relative)	Indicator only
263	0.5 - 225	0 - 10; 100; 1000	Type N* 52 ohms
701N	20 - 2000	0 - 1.2	Type N* 52 ohms
702N	28 - 2000	0 - 4	Type N* 52 ohms
703N	20 - 2000	0 - 12	Type N* 52 ohms
704N	46 - 2000	0 - 40	Type N* 52 ohms
705N	20 - 2000	0 - 120	Type N* 52 ohms
706N	28 - 2000	0 - 400	Type N* 52 ohms
711N	25 - 1000	0 - 30; 75; 300	N plus 83-1R Adapters
40588	28 - 2000	0 - 4000	1 5/8" Flange 51.5 ohms
445A9	28 - 2000	0 - 12,000	3 1/8" Flange 50.0 ohms
445A10	20 - 2000	0 - 40,000	3 1/8" Flange 50.0 ohms

DC OUTPUT DIRECTIONAL COUPLERS

Model No.	Frequency Range (mcs.)	Power Range Incident & Reflected (watts)	RF Connectors and Impedance
576N1	42 - 2000	1.2	Type N* 52 ohms
576N2	28 - 2000	0 - 4	Type N* 52 ohms
576N3	20 - 2000	0 - 12	Type N* 52 ohms
576N4	46 - 2000	0 - 40	Type N* 52 ohms
576N5	42 - 2000	0 - 120	Type N* 52 ohms
576N6	28 - 2000	0 - 400	Type N* 52 ohms
40288	28 - 2000	0 - 4,000	1 5/8" Flange 51.5 ohms
442A9	28 - 2000	0 - 12,000	3 1/8" Flange 50.0 ohms
442A10	20 - 2000	0 - 40,000	3 1/8" Flange 50.0 ohms

RF OUTPUT DIRECTIONAL COUPLERS

Model No.	Frequency Range (mcs.)	Coupling Attenuation	RF Connectors and Impedance
313N3	300 - 2000	30 db	Type N* 52 ohms
313N4	120 - 2000	40 db	Type N* 52 ohms
313N5	60 - 2000	50 db	Type N* 52 ohms
313N6	30 - 2000	60 db	Type N* 52 ohms
313N7	25 - 2000	70 db	Type N* 52 ohms

ABSORPTION TYPE RF WATTMETERS

Model No.	Frequency Range (mcs.)	Power Range (watts)	RF Connectors and Impedance
621N	1 to over 1000	0 - 120 milliwatts	Type N* 52 ohms
623N	1 to over 1000	0 - 1.2	Type N* 52 ohms
624N	1 to over 1000	0 - 4	Type N* 52 ohms
625C5	50 - 1000	0 - 120	Type C 50 ohms
611A7	50 - 1000	0 - 1200	3 1/8" Flange 50 ohms
612A	44 - 1000	0 - 6000	3 1/8" Flange 50 ohms

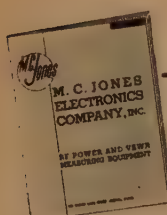
RF LOAD RESISTORS

Model No.	Frequency Range (mcs.)	RF Power Dissipation (watts)	RF Connectors and Impedance
633N	3000	50 (air cooled)	Type N* 52 ohms
635N	3000	200 " "	Type N* 52 ohms
636N	3000	600 " "	Type N* 52 ohms
636A	2000	600 " "	3 1/8" Flange 50.0 ohms
638A	2000	6000 (water cooled)	3 1/8" Flange 50.0 ohms

CALORIMETRIC TYPE Primary Standard of RF Power

Model No.	Frequency Range (mcs.)	Power Range (watts)	RF Connectors and Impedance
641N	0 - 3000	0 - 3; 10; 30; 100; 300	Type N 52 ohms

*Also available with UHF, C, and HN Connectors.
**Coupler Unit Only for use with 262 Indicator.



Please write for our 46-page catalog describing the complete M. C. Jones line.



M. C. JONES ELECTRONICS CO., Inc.
BRISTOL, CONNECTICUT

Constantin

GLASS-TO-METAL SEALS

YOUR "INSURANCE POLICY" FOR

RELIABLE OPERATION

Wherever glass-to-metal sealing is needed to insure long life and continuously high performance, Constantin seals give your components a big bonus "premium" in endurance and protection.

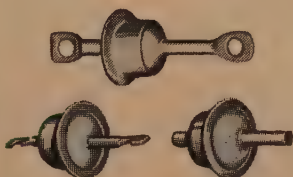
Constantin's experienced research and production engineers have designed and manufactured thousands of different glass-to-metal seals for specific applications. Its complete research, design and manufacturing facilities . . . machine shops for die construction, stamping, wire cutting and forming . . . and separate glass shops . . . provide prompt action on any work order.

For any glass-to-metal electronics application where a positive, efficient, vacuum-tight seal is a critical need, Constantin can meet your technical specifications with a custom designed unit. Improve the quality of your components . . . "insure" their high performance by making Constantin seals a major part of your production "policy." Write today for complete details.



ALL-IN-ONE ASSEMBLIES

Constantin can design an original seal to meet the special needs of your equipment. All-In-One Assemblies come with different types of internal and external mountings, doing away with expensive sub-assemblies and costly production line operations such as hole stamping, brazing, soldering, mounting of seals, etc.



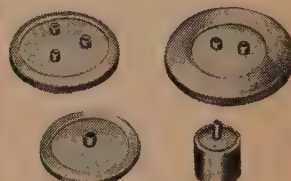
SINGLE TERMINALS

Extensive line of Single Terminals includes high compression and kovar types. Available Standard Pin types include pierced flats, hollow tubes, turret heads, tubulations with self-lugs, straight ends and cane or goose neck hooks.



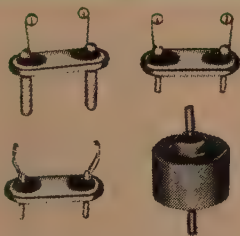
TRANSISTOR AND DIODE MOUNTS

For any soldering or welding application, Constantin has a complete line of Transistor and Diode Mounts which provide complete protection from moisture, dust, heat conditions and shock.



END SEALS

These quality units are designed and produced for electronic components which must stand up under extended operation . . . such as rectifiers, capacitors, resistors, delay lines, etc. Many different types and sizes are continually being developed to meet varying technical requirements.



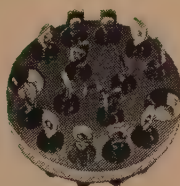
CRYSTAL BASES AND COVERS

Constantin's Crystal Bases and Covers are world-known and have been widely used for many years by components manufacturers. They meet all military specifications and can be manufactured in varying designs with standard and special crystal mounts.



CONNECTORS

Constantin Connectors are made with special steel alloys which are combined with glass using high compression techniques. Any desired finish can be supplied to meet all present anti-corrosion requirements. Constantin is especially known for the construction of standard and unique flanges and pin types.



ALL-METAL HIGH COMPRESSION HEADERS

Special fusing techniques are used in the manufacture of Constantin's All-Metal Headers. Standard types find use in countless applications . . . in relays, transformers, thermostats and many others. If your technical specifications encompass a special unit, Constantin will design a seal for your equipment.



MULTIPLE HEADERS

Constantin's plug and standard type Multiple Headers are manufactured with precision by advanced engineering techniques. Their rugged construction enables them to withstand thermal shock and assure continuously reliable operation. Available in many standard configurations and special designs.

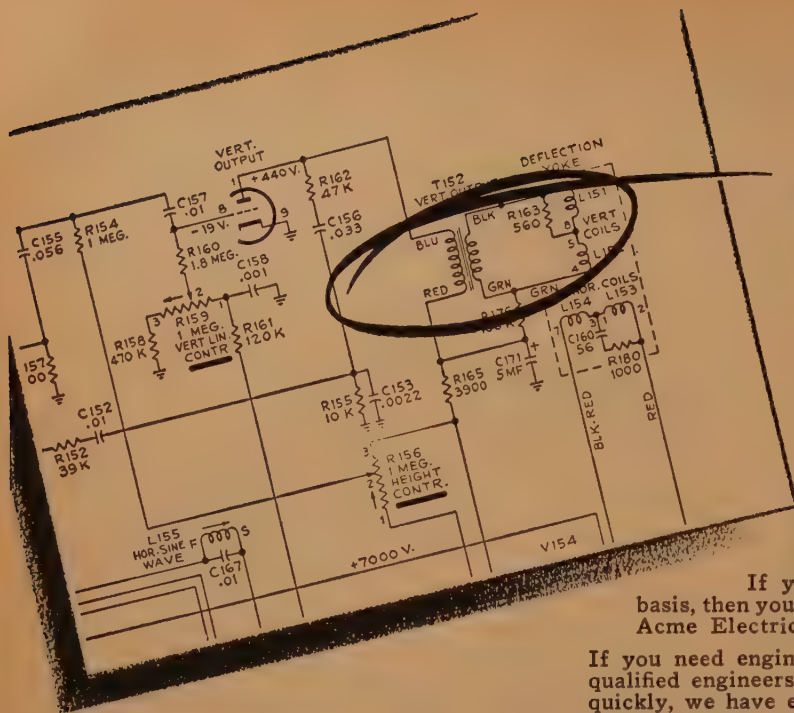


L. L. Constantin & Co.

**MANUFACTURING
ENGINEERS**

Route 46, Lodi, N. J. • 187 Sargeant Ave., Clifton, N. J.

TRANSISTOR MOUNTS • SINGLE TERMINALS • COMPRESSION HEADERS • END SEALS • CRYSTAL BASES • CONNECTORS • MINIATURIZATION



whenever the
circuit indicates a

TRANSFORMER

GET IN TOUCH
WITH

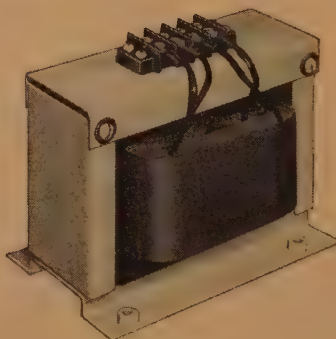
Acme Electric

If you buy transformers on a "quality foremost" basis, then you should be interested in the advantages of having Acme Electric produce the transformers you need.

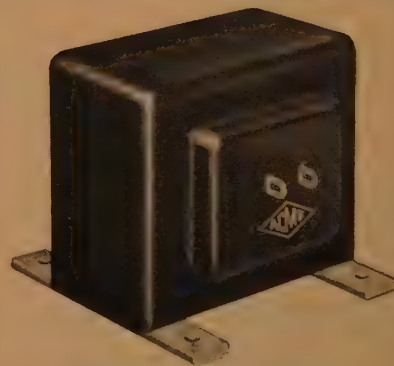
If you need engineering help with a design, we have a staff of qualified engineers to assist you. If you need quantity production quickly, we have every modern facility and carry large stocks of basic supplies to ship your production requirements as your needs demand. And, with our modern production equipment, experienced assemblers, we quote prices that are usually competitive.



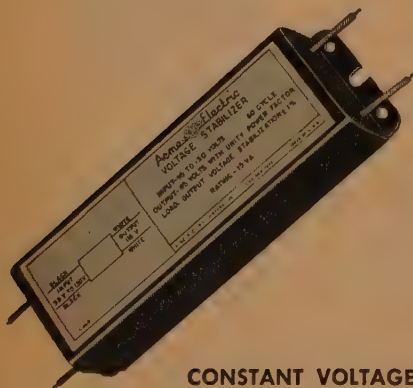
HIGH FREQUENCY
AVIATION TRANSFORMER



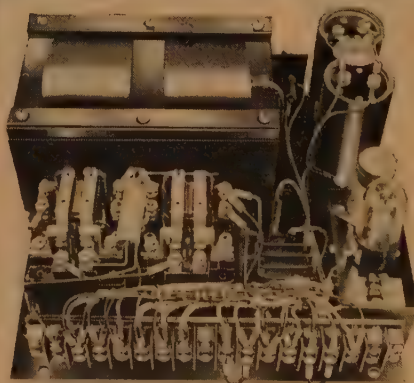
SATURABLE REACTORS



EPOXY ENCAPSULATED
TRANSFORMERS



CONSTANT VOLTAGE
STABILIZERS



D.C. REGULATED
POWER SUPPLIES



PULSE TRANSFORMERS



ACME ELECTRIC CORPORATION
316 WATER STREET • CUBA, N. Y.
West Coast: 1375 W. Jefferson Blvd. • Los Angeles, Calif.
In Canada: Acme Electric Corp. Ltd. • 50 Northline Rd., Toronto, Ont.

BURROUGHS CORPORATION

BEAM SWITCHING TUBES

BURROUGHS Beam Switching Tubes are 10-position high vacuum electronic distributors with high input impedance and ten individual constant current outputs.



Type 6700
Operation:
75-300 v
Switching Rate:
Above 2 Mc



Type 6701
Operation:
12-25 v
Switching Rate:
Above 1 Mc



Type M0-10R
Operation:
75-300 v
Switching Rate:
Above 10 Mc

NIXIE NUMERICAL INDICATORS



Burroughs all electronic indicators are gas-filled, cold cathode tubes, having a common anode with as many as 10 combinations of numerical or alphabet symbols. They are intended for use as a direct, in-line, readout device.



The 6844 is a ten digit numerical indicator tube with digits 0 through 9.

Rating:
170 v Dc
1.0 to 2.2 MA



"MINIATURE"

BD200 is a miniature numerical indicator same as 6844 except 4 x smaller volume, 40% less diameter.

Rating:
170 v Dc
0.5 to 0.9 MA



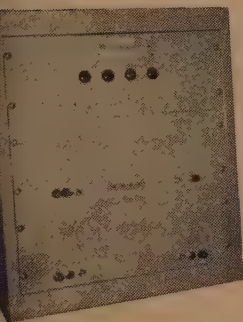
ALPHABET same as 6844 except cathodes are shaped in the form of letters instead of digits. Combinations can be made as desired.

PIXIE POSITION INDICATOR



The HB-105 is a gas filled, cold cathode, 10 position read-out device, having a common anode. It features 10 glow positions, 36° apart, visible through 10 numerical perforations (0 to 9) in the common anode, in the manner of an internal bezel.

TRANSFER STORAGE COUNTER



Burroughs' TS-204 with Magnetron Beam Switching Tubes counts, stores, and samples at predetermined intervals. It has the ability to sample high-speed information without stopping the count or losing the original data.

The design of this versatile unit allows visual storage display on the Burroughs' in-line numerical indicator tube, "Nixie", and direct operation of most standard print-out devices. Applications include:

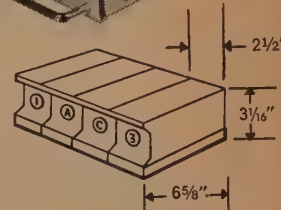
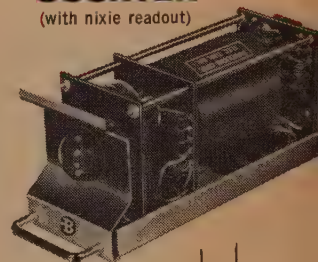
Data Handling Systems
Telemetry Monitoring Systems
Automatic Processing Control
Events Per Unit Time
Instrumentation

This Decade Counter combines the reliability of the Beam Switching Tube with the human-engineered "Nixie" to set a new standard in performance and appearance. These plug-in units have been designed for a minimum panel height with provisions for manual and electronic zero setting. Three models are available:

Type	Counting Rates
DC-101	10 kc
DC-102	100 kc
DC-103	1 mc

DECADE COUNTER

(with nixie readout)



ACCESSORIES

SOCKETS

SK100-R1 (for 6700 & 6701)
SK106 (for regular 6844)
SK112 (for 6844)
SK109 (printed circuit for 6844)
SK105 (for M010R)
SK111 (for HB105)

TEST CHASSIS

TC100 (for 6700)
TC101 (for 6701)
TC10R (for M010R)

TUBE CLAMPS

HCL100 (for 6700-6701 M010R)
HCL102 (for 6700-6701 M010R)

PULSE TRANSFORMERS

PT100 Blocking oscillator
PT102 Directly coupled (Pulse standardizer)

PIN STRAIGHTENERS

LS-100 26 pin (6700, 6701, M010R)
LS-101 20 pin (M010R)
LS-102 13 pin (Nixie)
LS-103 13 pin (Pixie)
Wiring Plugs available

Write today for complete technical engineering data on any of the above items.

Electronic Tube Division



BURROUGHS CORPORATION
Plainfield, New Jersey



VERSATILITY THROUGH

TRANSISTORIZED TEST EQUIPMENT



WAVEFORM GENERATOR

500

A truly portable signal source for rapid response tests in the audio and video region.

Pulse, squarewave, clipped sawtooth output. Continuously variable repetition rate and amplitude.

SIZE: 8½" by 5" by 4½"

WEIGHT: 5 pounds.



PULSE GENERATOR

502

A Battery Powered Pulse Generator which operates as well in the field as in the laboratory.

Provides stable pulses completely free from hydrogen-thyratron jitter. Permits amplitude modulation of the output.

SIZE: 6¼" by 8½" by 5¼"

WEIGHT: 5¼ pounds.



FREQUENCY METER

503

Provides accurate, direct frequency measurements from 3 to 100,000 cps in nine separate ranges.

Accuracy is independent of waveform or amplitude. No sensitivity control is required and the instrument requires no warmup.

SIZE: 11¼" by 8½" by 7"

WEIGHT: 8½ pounds.



TRANSISTOR CURVE TRACER

504

This fully transistorized, self-powered instrument measures the transistor characteristics most useful for design activities.

Eight curves of collector voltage vs. collector current are presented by electronically stepped values of base drive. An accessory, Transistor Test Fixture provides rapid short-safe inspection.

SIZE: 6¼" by 8½" by 8"

WEIGHT: 5¼ pounds.



30 MC GENERATOR

505

An RF signal source designed as a companion piece to the Model 500 and Model 502. Co-use provides a wide variety of amplitude modulated RF waveforms.

Alone, it serves as a handy source of CW RF Energy.

SIZE: 3½" by 6" by 3½"

WEIGHT: 1 pound.

CONSTANT PRODUCT DEVELOPMENT

POWER MEASURING EQUIPMENT



LIQUID CIRCULATOR

CALORIMETRIC WATTMETER



MICROWAVE TERMINATION

MC 1B

Measures, in nomographic form, the temperature rise of the calorimetric fluid to watts of average power dissipated in the Calorimetric Termination. These instruments exhibit matched rf characteristics over an exceptional frequency range.

Freq Range 2.6 to 26.5 KMC
Av'g Power 0-600 watts
Peak Power 600 kw



PEAK POWER TEST SET
100 X

Provides direct-reading power measurements from 10 microwatts to 3 milliwatts. Through the use of directional couplers, measurements up to the megawatt region are made with speed and convenience.

Operates from 8.5 to 9.6 MC at any repetitive rate from 10 cps to 20,000 cps.

MICROWAVE INSTRUMENTATION



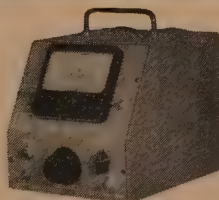
KLYSTRON POWER SUPPLY
701

The ideal Klystron Power Supply for all general microwave laboratory applications. Includes metering provisions for beam voltage and current and repeller voltage. Occupies minimum bench space.

Beam voltage 200 to 500 v, 65 ma at top end.

Reflector voltage 0-900

At 1 ma, 1% regulation with less than 1% ripple.

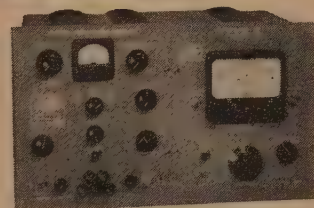


STANDING WAVE AMPLIFIER
601

Offers increased sensitivity and flexibility for routine VSWR and attenuation measurements. Outstanding performance is attained through a unique design which features extensive use of low-noise techniques.

0-60 db decade switch and continuous gain adjustment are combined in a single concentric control.

Sensitivity, full scale at 0.3 microvolts, VSWR 1.00 to 10 in two ranges.



MICROWAVE TEST SET
801

Consists of the Model 601 Standing Wave Amplifier and the Model 701 Klystron Power Supply. Ideally suited for microwave test bay application and includes all the electronic instrumentation necessary for VSWR and attenuation measurements together with a Klystron Power Supply that is the favorite in industrial and military laboratories.

Cubic Corporation's product line has been conceived to follow the military trend toward transistorization. The Military finds these instruments well suited to the versatile requirements of electronics testing.

5575 KEARNY VILLA ROAD • SAN DIEGO 11, CALIFORNIA

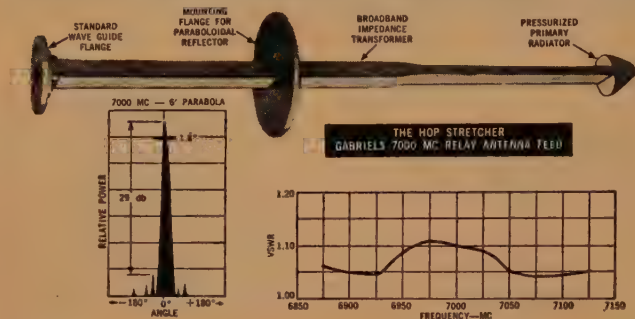
CUBIC
CORPORATION

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New Products

The HOP-STRETCHER feeds offer higher gain, lower sidelobe levels and more desirable beam-widths for center-fed parabolic antennas. This feed was developed for S, X, K_a and K_b bands.

Technical features of X-band antenna • Sidelobes at least 24 db down on 4, 6, 8 and 10 ft. reflectors • High gain efficiency, 65-70%



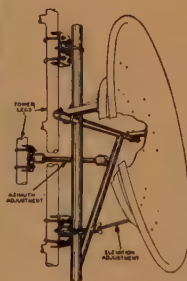
The new hi gain 3 kmc Cylindrical Coaxial Feed provides similar E and H-plane patterns, minimum side and backlobes, and negligible squint. Rear-mounted, with easy polarization adjustment to any angle.



7000 mc Offset Antenna. Ideal for installations where passive reflectors are utilized — VSWR less than 1.10:1 over 5900-8500 mc — Sidelobes at least 24 db down — gain is 41 db at 7000 mc. Elliptically shaped reinforced fiberglass reflector.



The new X-band parabolic antenna with standard feed. Features variable polarizing adjustment, 0 to 90°. Manually locked in position.



The new universal 3-point suspension mounting bracket for 2, 4, 6, 8 and 10 ft. parabolic reflectors.

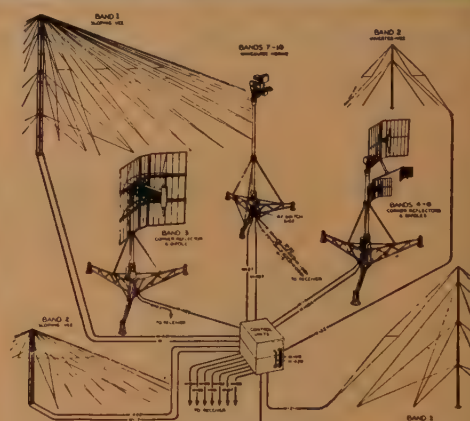
Features • Independent azimuth adjustment. • Independent elevation adjustment. • Adaptable for mounting in all locations.



GABRIEL'S STANDARD MICROWAVE PARABOLIC ANTENNAS

... Contributing millions of trouble-free operational hours for industry and the military.

- 7000 mc — Broadband (5925-7425 mc) high gain > 40 db, low sidelobes — low VSWR < 1.13 over band.
- 4000 mc — Narrow-beam broadband (3700-4200 mc) — low VSWR < 1.2:1 — gain > 37 db.
- 2000 mc — Available in offset and center-fed feeds. Narrow-beam broadband (1750-2110 mc) — high gain > 28 db, low VSWR < 1.3 over band.
- 940 mc — All weather radome covered feed — gain > 22 db, low VSWR < 1.25:1.



Broadband, HF to SHF, Directional Antenna Group — Remotely controlled.



Low-drag Airborne Flush-mount Antenna. Beacon — Countermeasures — Homing — Navigation

Missile Antennas — Telemetry, Destruct, Guidance ICBM, Land-to-Air, Air-to-Air, and Land-to-Land.

Radar Antennas

- Shipborne Search
- Harbor Control
- Airborne Height Finding
- Land Base Search

Designed, developed, and constructed to military specifications with improved strength-to-weight ratio and component reliability.



Aleutian Line—Dew Line Low loss, heavy duty duplex feed horns for Tropospheric Scatter Radio Communication Systems.



Motorized Passive Reflector

For maximum point-to-point transmission in microwave relay links. Fast, accurate, easy adjustment from remote location. Manually adjusted reflectors also available.

The Gabriel Electronics Division is one of the world leaders in microwave relay link antennas, and the more complex antennas. They are dedicated to improve and extend the state-of-the-art in antennas and antenna components.

Call or write to GABRIEL ELECTRONICS DIVISION for counsel on your antenna needs.

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the
transformers of
proven
performance and
quality



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FILTER
REACTORS



MODULATION
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REACTORS



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BULLETINS**

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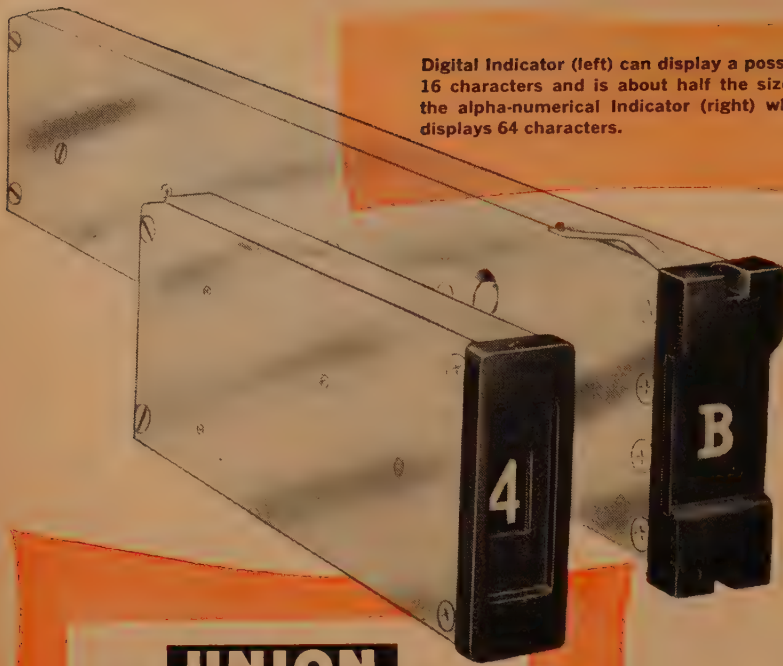
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P.O. Box 211

KEARNY, NEW JERSEY, U.S.A.

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Digital Indicator (left) can display a possible 16 characters and is about half the size of the alpha-numerical Indicator (right) which displays 64 characters.



UNION INDICATORS

for Data Display Storage and Transfer

UNION Digital and Alpha-numerical Indicators are electro-mechanical, D.C.-operated readout devices for displaying characters in accordance with a predetermined code. The character display may be made to suit the users' requirements.

Indicators are designed for plug-in mounting in a row so that data or messages of any desired length can be stored, displayed or transmitted at will. The indicators can be applied to the output of digital computers, teletype receiving equipment in conjunction with a buffer storage unit, telemetering systems, or wherever data needs to be displayed.

An important feature of these indicators is their inherent storage and transmitting characteristics, which provide for data entry and

retransmission. The indicators can be used to accept data from a source, free the source for other programs, and disseminate the data from one indicator to another as required.

Two interesting applications: The Alpha-numerical indicator is being used in data display equipment for flight control built for CAA wherein data enters the system by keyboard or via teletype at 60 words a minute, or from magnetic drum storage at speeds up to 1000 words per minute.

The Digital Indicator is being used in pipeline remote control systems, for displaying and storing telemetered data such as temperature, pressure, flow, etc. in a central office. Write for Bulletin No. 1011 for further information.

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DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

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Two BUSINESS EDITIONS of **ELECTRONICS**, published on the 10th and 20th of each month, are providing business-minded electronic engineers with the marketing, topical and commercial information needed to keep abreast of today's complex electronic industry. The engineer who used to be concerned chiefly with designing a circuit or product now wants to know where and how it can be sold.

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NEWS for design engineers



ACTUAL SIZE

UNION

**DIGITAL
INDICATOR**

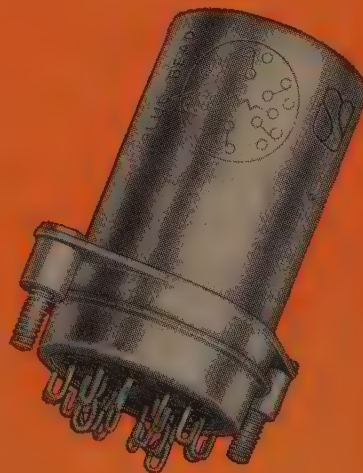
A new lightweight Digital Indicator for data display has been developed by Union Switch & Signal that has many uses in aviation and other industries. It is designed for either local or remote use, on a direct wire basis, and responds to binary code. The indicator reads out directly and has a non-dissipating storage facility. Data can be printed out if necessary. Write for Bulletin 1011.

UNION

MINIATURE RELAYS
AC or DC

A wide variety of **UNION** AC or DC Miniature Relays, with all standard mountings, is stocked for immediate shipment. Contacts can be gold alloy, palladium or the new HI-LO material which permits the use of one relay for both high-level loads of two amperes and low-level, dry-circuitry loads, eliminating the need for two separate relays.

Coil resistance runs up to 13,500 ohms, vibration resistance up to 2000 cycles at 30 G's, and shock in excess of 50 G's. Write for Bulletin 1012.



ACTUAL SIZE

GENERAL APPARATUS SALES



UNION SWITCH & SIGNAL

DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

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HITEMP WIRES

(-90°C. to +250°C.)

TEFLON® MAGNET WIRE — "TEMPRITE" Sizes 14 to 50 AWG, single, heavy, triple, or quadruple thicknesses.

SPECIAL TEFLON MAGNET WIRE — "TEMPRITE X" Same characteristics and sizes as regular Temprite, but specially processed for severe application.

FLEXIBLE TEFLON TUBING — "TEMPRENE NON-RIGID" Sizes 10 to 26, solid colors and special striped combinations.

TEFLON EXTRUDED TUBING — "TEMPREX TUBING" Sizes 4 to 24. Fourteen solid colors.

TEFLON HOOK-UP WIRE — "TEMPRENE" Sizes 14 to 30 AWG. Two and three color striped combinations, plus 10 solid colors. Conforms to MIL-W-16878B (E and EE).

TEFLON EXTRUDED HOOK-UP WIRE — "TEMPREX" Sizes 10 to 32 AWG, in both striped and solid colors. Conforms to MIL-W-16878B (E and EE).

TEFLON INSULATED LEAD WIRE — "TEMPCLAD" Teflon insulated lead wire with an outer covering of Teflon impregnated glass fiber braid. Sizes 8 to 30 AWG.

TEFLON FIBER LACING TAPE "NEBROC® TF" All Teflon lacing tape, exhibits excellent thermal and mechanical properties. An ideal tape for Class H assemblies.

TEFLON GLASS FIBRE SLEEVING — "TEMPTUBE" Available in sizes up to 1¼" I.D. Colors on request.

SILICONE MAGNET WIRE — "THERMALON" Sizes 14 to 42 AWG Incl. Used for temperatures from -54°C. to +150°C. Made in single or heavy thicknesses.

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RIBBON CABLE ASSEMBLIES — "TEMPBRAID" 100% Teflon, flexible, flat ribbon multi-conductor cables.

SHIELDED RIBBON CABLES — "METALBRAID" Flexible, shielded, flat, multi-conductor cables, i.e. tinned or silver plated copper.

TEFLON MARKING FLUID Teflon printing ink available in ten standard colors. Can be used for printing codes, etc., on Teflon.

SURFACE TREATED TEFLON WIRES Adherence of varnishes and compounds on Teflon and magnet hook-up wires now practical.

REINFORCED STANDARD CONDUCTORS — "HIGH STRENGTH" Mechanically improved Teflon insulated hook-up wires meet all requirements of MIL-W-16878. Sizes 24-32 AWG.

***DuPont's Trade Name for POLYTETRAFLUOROETHYLENE**

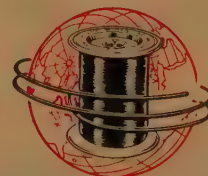
All Teflon products are rated for continuous operation from -90°C to +250°C., have excellent dielectric strength, and are impervious to all commercial solvents. All colors conform to MIL. Std. 104.

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CRAIG!

In this increasingly mobile age of electronics, nearly everything that must move swiftly and arrive safely can do it better in Craig-designed and built shelters and carriers.

Complete electronic systems—with equipment installed and ready to operate—travel in rugged, roomy vans like the LM-105 you see on this page. Other systems fly direct—for a helicopter can transport an entire system

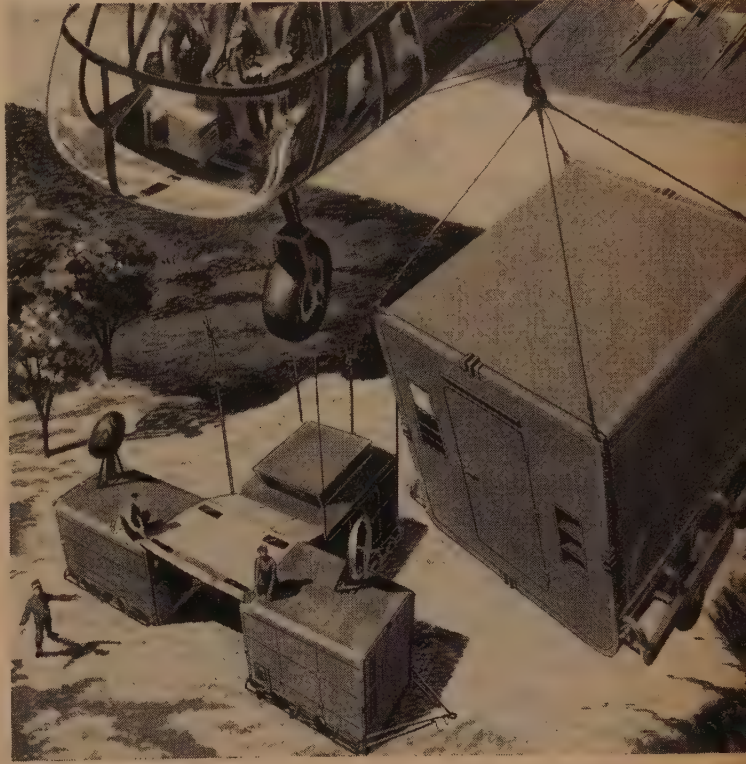
when that system is housed in a lightweight Craig Helicop-Hut LM-104.

New developments like these . . . plus matchless experience in the field . . . and Craig's complete, design-through-installation service . . . are excellent reasons why you can turn to Craig with complete confidence when you have a problem in mobile, air-transportable systems.

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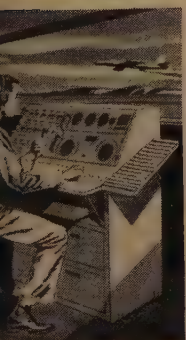


TRAILER VAN LM-105 — Transportable by land, sea, or air. 7,000 lb. payload. Detachable chassis. 2" thick honeycomb insulation for walls, floor, ceiling. Inside dimensions: 140" x 90" x 79". Easily detachable from dolly for aircraft, ship, or rail loading.



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Designed for world-wide use — **RUGGED, DEPENDABLE, CRAIG-BUILT PRODUCTS LIKE THESE . . .**



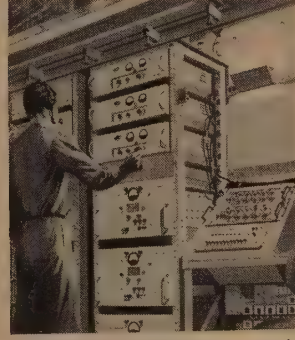
CONSOLES — For air traffic control and other installations. Provision for remote control equipment, loudspeakers, etc.



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RELAY RACKS — Rugged, high strength, aluminum construction general purpose electronic racks. Accommodate standard RETMA panels. Drawers and accessories available.



SPARE PARTS CABINETS — For indoor and outdoor storage. Many sizes and configurations. Removable drawers, doors and covers. Aluminum or steel.

ANTENNA TOWERS — Full information on towers for supporting all types of antennas on request.

COMPLETE INSTALLATION SERVICE — Craig service includes layout, installation, and check-out of electronic equipment in shelters of all types. Complete systems are ready to operate when they leave the factory.

For full information, write or phone —

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Reputation
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Quality*

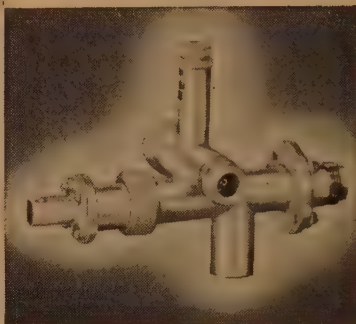


NOISE AND FIELD INTENSITY METER, Model NF-105

(Commercial equivalent of AN/URM-7)

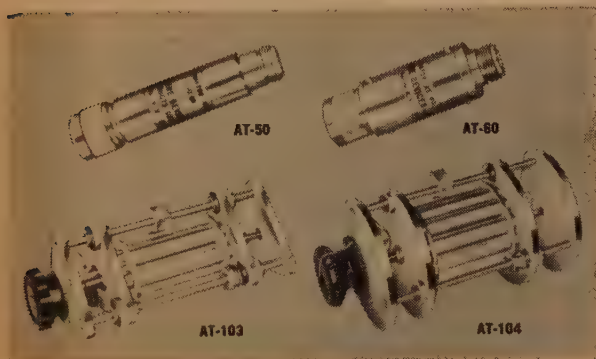
150 KC to 1000 MC

Four quick-change tuning heads • Single knob tuning for easy scanning
Built-in impulse generator serves as calibrator • Carrier and peak reading
VTVM • Aural slideback • Coaxial step attenuators • Regulated 'A' and
'B' supply.



COAXIAL CRYSTAL MIXER, Model CM-107

Broad Band, Fixed Tuned • 225 MC to
5600 MC in 8 models • Input and L.O.
VSWR better than 2 to 1 • L.O. rejection
at IF output better than 30 DB.



UHF ATTENUATORS, Models AT-50, AT-60

50 ohm resistive T-networks
of concentric line construc-
tion.

FREQUENCY RANGE:

AT-50: DC to 4000 MC.

AT-60: DC to 3000 MC.

VSWR: Better than 1.2 at all
frequencies.

ACCURACY: $\pm 1/2$ DB.

RATED POWER:

AT-50: 1W continuous

1KW peak

AT-60: 2W continuous

2KW peak

STEP ATTENUATORS, Models AT-103, AT-104

These units use AT-50 pads in 6 step and
12 step coaxial turret arrange-
ments respectively.

COAXIAL TERMINATION, Model TE-80

1 watt, DC to 4000 MC.



VARIABLE FREQUENCY POWER SUPPLY, Model VP-400

POWER OUTPUT: 500 watts

VOLTAGE REGULATION:

2%, no load to full load

HARMONIC DISTORTION:

5% maximum, total, (to 400W).



IG-115



IG-118



IG-102

UHF IMPULSE GENERATORS, Models IG-102, IG-115, IG-118

Model	Flat Spectrum ($\pm 1/2$ DB)	Peak Output Level	Repetition Rate
IG-102	10 KC to 1000 MC	70,000 μ V/MC	2.5 to 2500 cycles
IG-115	10 KC to 1000 MC	100,000 μ V/MC	60 cycles
IG-118	100 MC to 10,000 MC	9,000 μ V/MC	2.5 to 2500 cycles

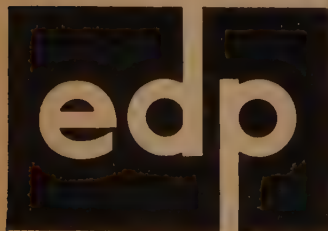
POWER DIVIDERS, Model PD-90

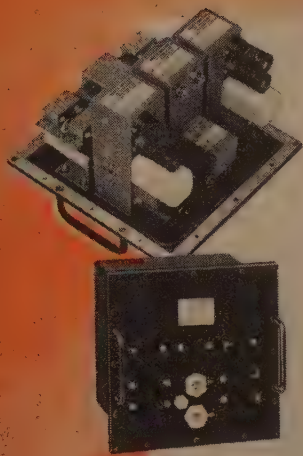
FREQUENCY RANGE: 800 to 10,000 MC in 5 models,



For complete engineering data, please send for our new Catalog No. 357

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Manufacturers of FIELD INTENSITY METERS • DISTORTION ANALYZERS • IMPULSE GENERATORS
COAXIAL ATTENUATORS • CRYSTAL MIXERS





PRECISION AIRBORNE POWER SUPPLIES

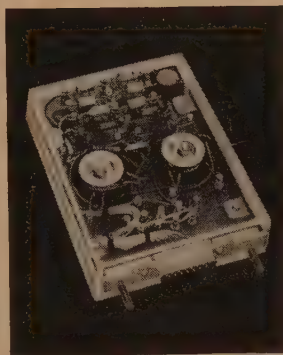
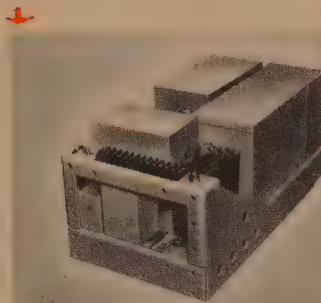
Originally developed by MA Inc. for the reference circuit of intercontinental guided missiles. Unique design employs magnetic amplifiers in combination with high reliability vacuum tubes, silicon diodes and a special constant temperature oven.

HYDRAULIC VALVE AMPLIFIER →

Miniaturized, high performance magnetic amplifier for critical applications. High gain, fast response achieved in single stage by operating at a supply frequency of 5000 cps or 3600 cps. Designed for controlling hydraulic servo valves and other low power output devices.

POWER SERVO AMPLIFIERS

Servos available for practically all standard 60 and 400 cps motors, from 1 watt up to 2000 watts. Completely self-contained. Can be supplied with means for stabilizing servo system performance for various parameters such as load inertias, gear ratios, etc.



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including magnetic servo amplifiers, variable speed drives, miniature amplifiers, analog computers for special applications, photo-electric controls, regulated power supplies and automatic control equipment. Call or write for bulletins or recommendations on your control or systems engineering problems.

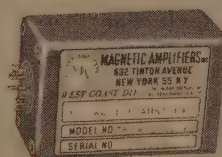


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Displays collector and transfer curves on cathode ray oscilloscope. Handles all types of transistors and power transistors. Curve tracer permits rapid determination of parameters. For selecting, matching and detecting anomalies and rejects.

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For the conversion of A.C. power at the commonly available frequencies to high frequency multipliers. Frequency conversion is accomplished by magnetic circuits without the use of vacuum tubes. Single or multi-stage units for operation from single phase or polyphase supply lines can be designed to fit specific applications.

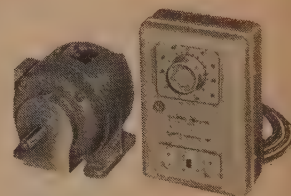
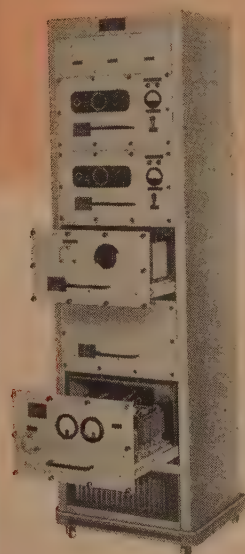


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JUNIOR	1/8 to 1/100 Hp.
SIZE I	1/4, 1/3 and 1/2 Hp.
SIZE II	3/4, 1 and 1 1/2 Hp.

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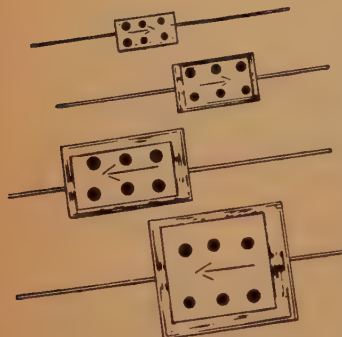
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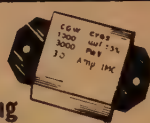


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Extreme miniaturization**

Dielectrically excellent glass and alternate layers of conductor fused by heat and pressure into a rugged monolithic form. Values cannot be altered except by complete mechanical destruction. TC is plus $140 \pm 25 \text{ ppm}/^\circ\text{C}$. from -55°C . to $+85^\circ\text{C}$. Excellent retrace. TC variation between capacitors: under 15ppm. Negligible capacitance

drift. Moistureproof. Sizes CY10, CY15, CY20, CY30. Custom variations to your specifications. (Distributed by Erie Resistor Corp.)

Medium-power transmitting



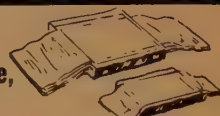
CY60, CY70. Small, light, strong. Ideal for mobile RF transmitters. Electrically replace mica types CM45—CM70, offer many advantages.

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Characteristics and advantages of glass construction, to your specifications. Values and canning to your specifications.

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Up to 90% volume reductions possible when compared with wire lead types.

Extreme dependability plus temperature and moisture resistance in tiny-case sizes. To specification.

Special combination*

Advantages and characteristics of glass construction and performance in an infinite variety of shapes, sizes, leads, for unusual assignments.

RESISTORS



**Type N . . . accurate
Stable, economical**

Critical accuracy and extreme stability, even under high temperature, high moisture, vibrating conditions. Range: $\frac{1}{2}$, 1, 2W. Operate to 140°C . ambient temperature with derating. Low noise level. Voltage coefficient less than .001% per volt average. Infinite load life. Average resistance change after 10,000 hours rated dissipation is less than 1.0%. Permanent resistance change after standard 5-second overload of 6.25 times rated power is under .75%. And Corning Type N's are low-cost. To MIL-R-10509B specs.

**Low-power resistors . . .
Highest resistance range of any low-power resistor**

Small, noninductive and stable. *Low-priced!* Like all Corning resistors, the fired-in conductive film is tough, abrasion-resistant, requires no special handling. Resistance spiralled automatically under electronic control for interchangeability. Impervious to moisture. Range: LP3—3W., 200—20,000 ohms; LP4—4W., 200—40,000 ohms; LP5—5W., 200—45,000 ohms; LP7—7W., 200—36,000 ohms; LP10—10W., 200—70,000 ohms. Tolerance $\pm 10\%$. With derating, operate at ambient temperatures over 120°C . (Distributed by Erie Resistor Corp.)

**Type R . . . high-power
2% resistors—to 1 M Ω**

Range from 10 to 1,000,000 ohms, ratings from 7 to 115W., are noninductive. Well suited to sharp pulse work. Vertical or horizontal operation. Operate up to 200°C .; hot-spot temperature to 235°C . Meet MIL-R-11804B specifications.

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Save space**

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to MIL-R-11804B specs**

Stable performance to 200°C . without encapsulation or hermetic sealing. Low-voltage coefficient, negligible inductive and capacitive effects. Difficult to measure noise level. Made to customer specifications rather than RTMA values. Size: $\frac{1}{2}$, 1 and 2W at 120°C . ambient.

**Type WC5 . . . water-cooled HF . . .
high-power TV, FM**

Mechanical design permits direct mounting on 3" coax line end at RF ground potential. Extremely versatile, adaptable. Negligible skin effect. Range: 35—300 ohms with $\pm 15\%$ standard; 10 and 5% available, extra.

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**Direct-traverse
and midget-rotary**

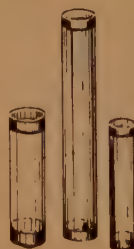


D.T.—For applications of extreme ruggedness plus thermal stability and smooth tuning characteristics. Has practically zero TC in the VHF range. Negligible capacity shift with widely variable ambient temperatures. With brass or invar core. Four standard ratings: 0.5 to 3.0 mmfd; 1.0 to 7.5 mmfd; 1.0 to 8.0 mmfd; 1.0 to 12.0 mmfd.

ROTARY—For outstanding performance and economy. Three capacity ranges at 50 mc. Four terminations; push-on mount with saddle-clip brass core; push-on mount with wire lead, brass core; push-on mount with solder spot, brass core; split-bushing mount with pan terminal and invar core. Also custom design and manufacture to your specifications. (Distributed by Erie Resistor Corp.)

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moisture, molds,
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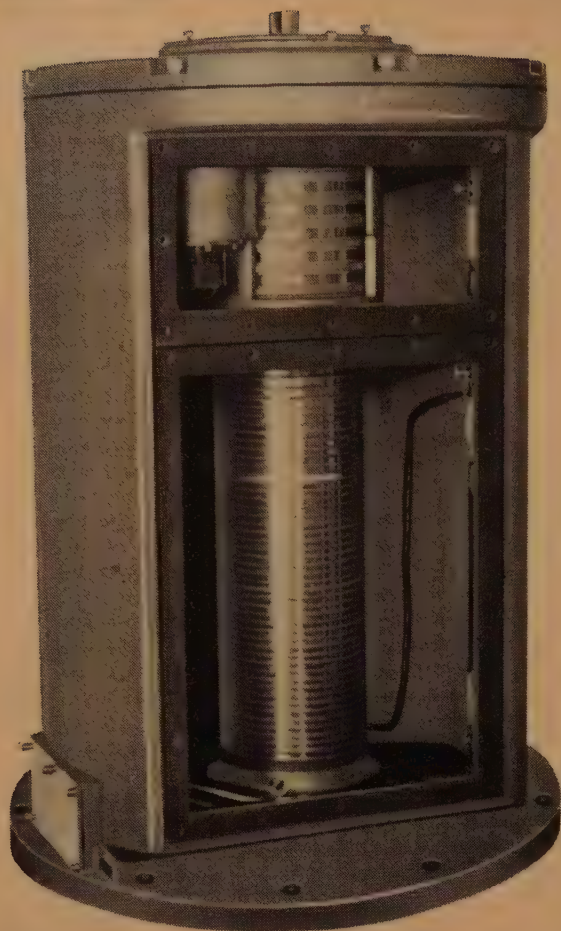
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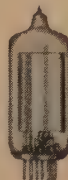
Years of experience in the design and production of these special types have resulted in tubes that offer superior service in the generation of pulse voltages in the order of microseconds.

CHATHAM TYPE 5949/1907



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CHATHAM TYPE VC-1258



Zero bias miniature thyatron for generation of peak pulse power to 10 KW. Available with 28 volt heater, ruggedized for extreme vibration.

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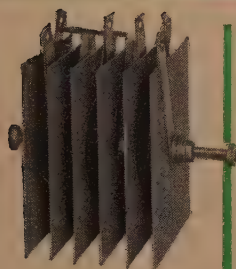


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CHATHAM TYPE VC-1257



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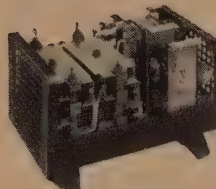


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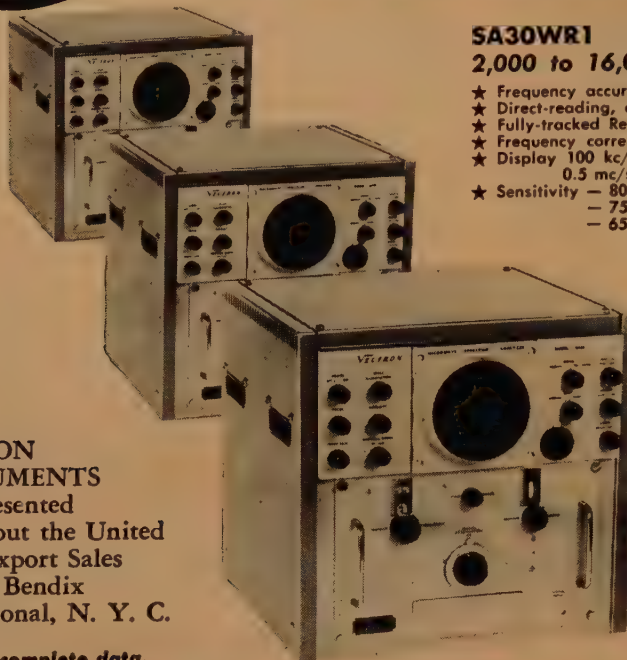
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- ★ Display 100 kc/s to 10 mc/s per inch at 2,000 mc/s
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- ★ Sensitivity — 80 dbm at 2,000-4,000 kc/s
— 75 dbm at 4,000-8,000 kc/s
— 65 dbm at 8,000-16,000 kc/s

SA30X5

8,500 mc/s to 9,660 mc/s

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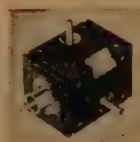
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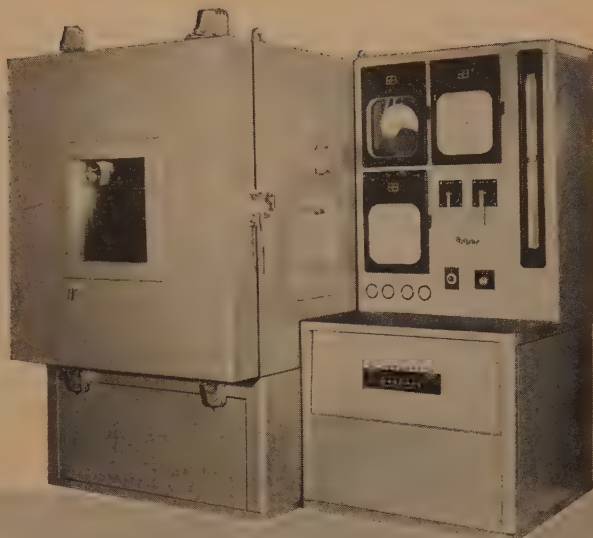
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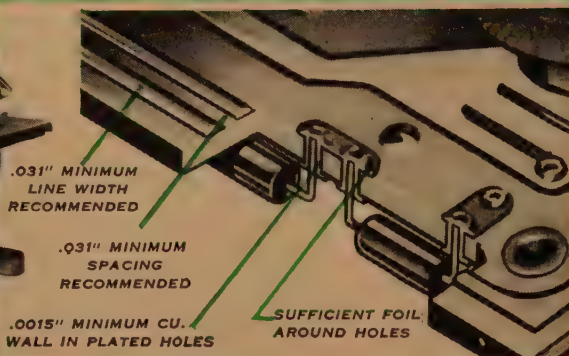


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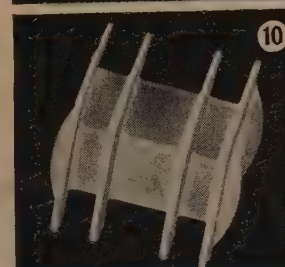
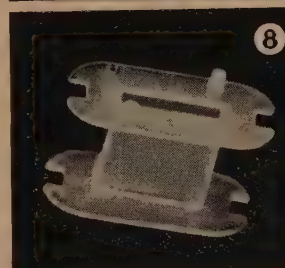
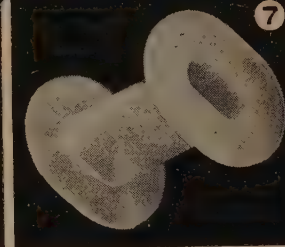
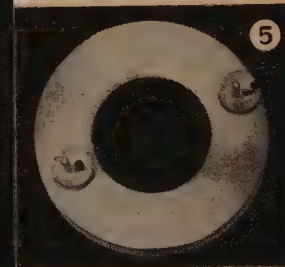
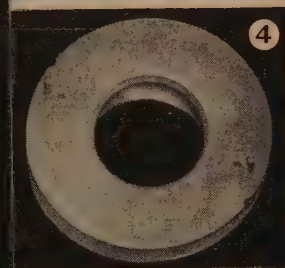
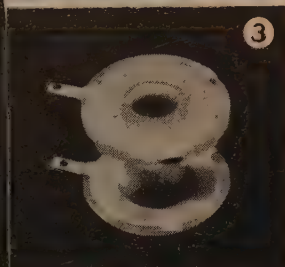
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Model 11-Q — 30 mc — 400 mc.

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Manufacturers with products to sell in the Field of Nuclear Energy find that advertising in NUCLEONICS is a sure-fire method of moving those products because they reach 16,000 potential purchasers through the advertising pages of NUCLEONICS. From Absorbent Paper to Zinc Bromide... products in the Field of Nuclear Energy are SOUGHT and BOUGHT by important Physicists, Metallurgists, Geologists, Biologists, Physicians, Radiologists, Bio-Chemists, Engineers, Technicians and Management because these important buying influences go first to the sales pages of NUCLEONICS for product data in Nuclear Energy.

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HIGH VOLTAGE POWER SUPPLIES AND EQUIPMENT

We have sold quantities of these power supplies to laboratories, industrial concerns, the government and universities. Only the best available selected material goes into these units, so that you will have many years of dependable service. Only a few of our standard models are shown below. Quotations on special supplies cheerfully given.

PRECISE MEASUREMENTS COMPANY

HIGH VOLTAGE POWER SUPPLIES



A precision, well constructed high voltage supply for meter testing and calibration, electrostatic painting, breakdown tests, nuclear physics and wherever high potentials at low currents are needed. Output is well filtered direct current. Adjustable by means of a control on the front panel. Available with or without meter. Input voltage is 115 v., 60 cycles. Regulated models feature even easier adjustment of output voltage. Once you turn the knob to desired value, voltage then remains constant regardless of power line changes or load variations. Regulation is $\pm 1\%$ or better over most of the control range. Closer regulation on special order.

Model		Maximum Voltage	Price	Price Regulated Model
6001	With Kilovolt Meter	1,000	\$75.00	
6000		2,500	60.00	
6000-A	With Kilovolt Meter	2,500	80.00	\$120.00
6005		5,000	75.00	
6005-A	With Kilovolt Meter	5,000	95.00	135.00
6010		10,000	85.00	
6010-A	With Kilovolt Meter	10,000	105.00	145.00
6015		15,000	95.00	
6015-A	With Kilovolt Meter	15,000	115.00	155.00
6025		25,000	115.00	
6025-A	With Kilovolt Meter	25,000	155.00	205.00

MIRROR SCALE HIGHER ACCURACY METERS: Recommended where more exact settings or measurements are needed. Meter size has been increased to 6 inches for easier reading. Price \$35.00 additional on any meter equipped model.

AC INSULATION AND BREAKDOWN TESTERS

Used in testing insulation where AC voltages are desired. Dual instruments are also available which provide choice of AC or DC output with simple toggle switch selection. Units include kilovoltmeter, current meter and automatic overload cutoff circuits.

Model	Voltage	VA	AC	Price AC and DC
3000	0 to 3,000	75	\$150.00	\$ 250.00
3010	0 to 3,000	300	250.00	400.00
3050	0 to 3,000	1,500	500.00	650.00
3100	0 to 6,000	3,000	700.00	1,100.00

INDUSTRIAL POWER SUPPLIES



These industrial type power supplies are built for service and efficiency. All employ husky components that have been selected for their power handling capacity. Controls are arranged so that operation is greatly simplified and a number of safety features are built in for maximum protection of personnel and equipment. Polarity reversing models (as illustrated) can be had at additional cost.

Model	Voltage	Current	Price
F-500	0-500	3 AMP	\$800.00
F-6001	0-1000	2 AMP	975.00
F-6002	0-2000	1 AMP	985.00
F-6005-A1-H	0-5000	100 MA	550.00
F-6005-A1-5H	0-5000	500 MA	650.00
F-6005-A1-K	0-5000	1 AMP	1100.00
F-6010-A1	0-10,000	100 MA	800.00
F-6020-A05	0-20,000	50 MA	975.00
F-6050-T	0-50,000	1/2 MA	600.00
F-6100-T	0-100,000	1/2 MA	1100.00

100 KV. KILOVOLT METER

- Read High Voltages Directly with Extra-High Input Impedance.
- Single Instrument Reads Both A.C. and D.C. Voltages!
- Superb Craftsmanship—Portable Oak Case.

Model	Range Kilovolts	Price D.C. Model	Price A.C./D.C. Model
4000	0-25/50	\$67.50	\$100.00
4000-A	0-100	80.00	125.00
4000-B	0-50/100	85.00	130.00
4000-C	0-10/50/100	95.00	160.00

Other Ranges to Order

HIGH VOLTAGE CONVERTERS



Solves your High Voltage problem in the simplest possible way. Simply connect Input to $1\frac{1}{2}$ or 3 V. battery (or low voltage A.C.) and obtain your high voltage output. Output voltage adjustable from zero to 6,000 Volts AC (or DC when rectified). Typical output is 1 Ma. at 130 Volts D.C., 200 Microamperes at 500 Volts and 100 Microamperes at 1,000 Volts, with 3 Volts input. Model 7 MVT as illustrated, plugs in like a radio tube. The Model 10 MVT is not encased.

Model	Primary	Secondary	Price
7 MVT	1 to 4 Volts	0 to 6,000 Volts AC Max.	\$12.50
10 MVT	1 to 4 Volts	0 to 6,000 Volts AC Max.	\$10.00

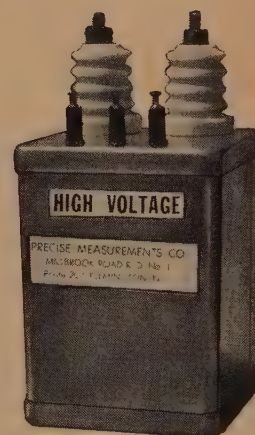
TRANSFORMERS, HIGH VOLTAGE

For those who build their own power supplies. These units are small and compact and rated for constant service. Primary designed for 115 Volts 60 Cycle. Only standard models are listed, other voltages and currents available on order.

Model	Voltage	Model	Voltage
1 KVT	1 KV	10 KVT	10 KV
2 KVT	2 KV	15 KVT	15 KV
3 KVT	3 KV	25 KVT	25 KV
5 KVT	5 KV		

PACKAGED POWER SUPPLIES

These conveniently packaged power units will be found ideal for applications requiring minimum size and weight. Features isolated high voltage terminals permitting either the positive or negative side to be grounded. Rectifier tubes are operated from separate filament transformers so that DC output voltage can be varied from zero to full rated value. Selenium rectifier types have extra cells to assure operation under high line voltage or light loading. All standard units have well filtered DC output. Power packs with AC output available on order.



Model	Output Voltage	Current	Model	Output Voltage	Current
05-KV-5MA	500 Volts DC	5 Ma.	20-KV-1MA	20 KV DC	1 Ma.
1-KV-5MA	1 KV DC	5 Ma.	20-KV-5MA	20 KV DC	5 Ma.
2-KV-5MA	2 KV DC	5 Ma.	30-KV-1MA	30 KV DC	1 Ma.
5-KV-1MA	5 KV DC	1 Ma.	30-KV-5MA	30 KV DC	5 Ma.
5-KV-5MA	5 KV DC	5 Ma.	50-KV-1MA	50 KV DC	1 Ma.
10-KV-1MA	10 KV DC	1 Ma.	50-KV-5MA	50 KV DC	5 Ma.
10-KV-5MA	10 KV DC	5 Ma.	75-KV-1MA	75 KV DC	1 Ma.
15-KV-1MA	15 KV DC	1 Ma.	100-KV-1MA	100 KV DC	1 Ma.
15-KV-5MA	15 KV DC	5 Ma.			

PRECISE MEASUREMENTS COMPANY

MILLBROOK AVENUE

FLEMINGTON, NEW JERSEY

TEL. FLEMINGTON 900



HYCON EASTERN, INC.

CRYSTAL FILTERS

.. in the 10 Kc to 30 Mc range

Hycon Crystal Filters make possible *single conversions* in AM and FM receivers while retaining the important advantages of double and triple conversions. High selectivity at the first i.f. with greater stability and reliability are among these advantages.

The following table shows a partial list of *standard* Hycon Filters. New *standard* models are frequently being added. If a standard Hycon Filter should not meet your requirements, our engineering service can be made available to help solve your selectivity problems.

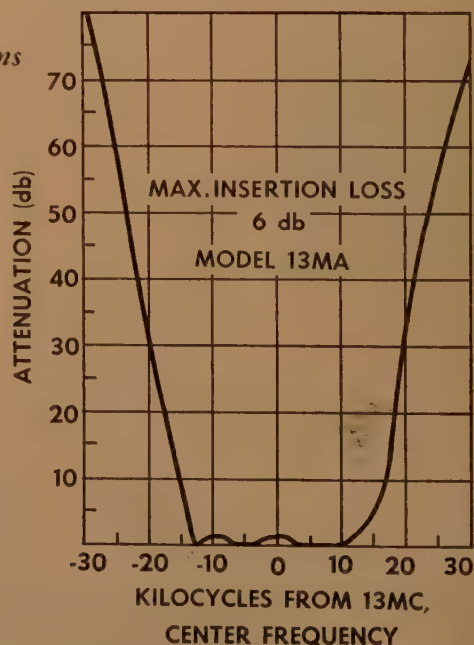
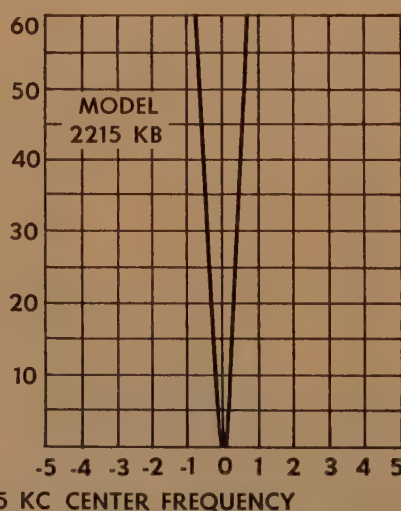
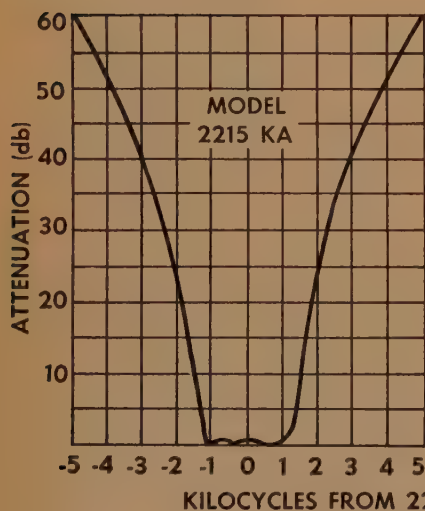


Model 13MA

Model No.	Frequency	Bandwidth	Insertion Loss	Shape Factor	Size
100 KPA	100 Kc	50 cps	3 db	4.0	3 1/16" L x 2 3/4" W x 2" H
2215 KA	2215 Kc	2800 cps	3 db	3.0	2 7/16" L x 1 5/16" W x 1 3/4" H
2215 KB	2215 Kc	250 cps	3 db	4.0	2 7/16" L x 1 5/16" W x 1 3/4" H
13 MA	13 Mc	30 Kc	6 db	1.8	3 7/16" L x 1" W x 1 1/2" H
13 MB	13 Mc	15 Kc	6 db	1.8	3 7/16" L x 1" W x 1 1/2" H
13 M-DA	13 Mc	50 Kc	—	—	2 3/8" L x 1" W x 1 1/2" H

- SMALL SIZE
- HIGH SELECTIVITY
- EXTREME ACCURACY
- LOW INSERTION LOSS
- EXTREME STABILITY WITH VARIATION IN TEMPERATURE
- HERMETICALLY SEALED

Write for Crystal Filter Bulletins



Call the
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Representative
Nearest You

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Atlanta, Ga.
TRinity 6-3020

Kay Sales Co.
Kansas City, Mo.
BALtimore 1-3800

Rapid Access
For Instrumentation Data
Reduction Systems

- Timing system operates over any combination of tape speeds.
- High speed search in either direction.
- Timing Information occupies only a part of the available bandwidth.
- Mounts in any RETMA standard 19" relay track.

MAGNETIC TAPE SEARCH UNIT

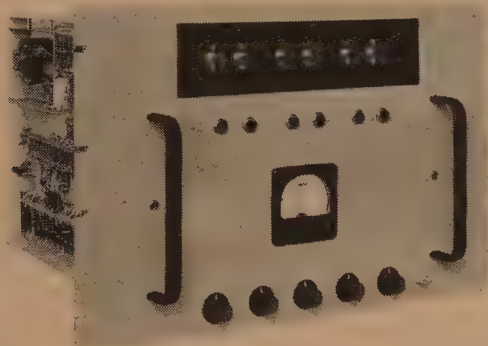
... for tape search



MAGNETIC TAPE SEARCH UNIT, MODEL 202, operates during data reduction periods. This instrument automatically locates and selects for controlled playback the tape data included between a "sequence start time" and a "sequence end time" specified by panel dial settings. The time index is visually displayed as illuminated digits.

DIGITAL TIMING GENERATOR

... for tape indexing



DIGITAL TIMING GENERATOR, MODEL 201 generates numerically coded timing signals which are recorded on the magnetic tape throughout the data recording periods, providing a precise digital index in terms of elapsed time.

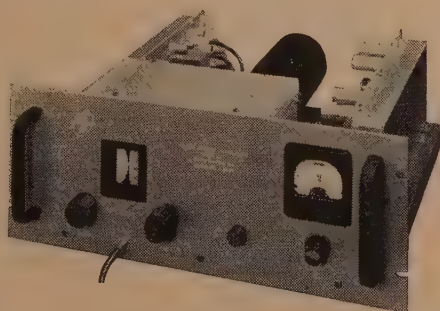
MODEL 206 A IS A MILITARIZED AIRBORNE VERSION OF MODEL 201.

Write for Bulletin TSG

ULTRA STABLE OSCILLATOR

... One Megacycle Signal Source ... Stability: 1 part in 10^9 per day

Hycon Eastern's new Ultra Stable Oscillator is useful wherever precise time measurements or frequency control are required, as in reinsertion of carrier in suppressed carrier systems, telemetry, astronomical measurements, navigation systems, geophysics or other critical applications. MULTIPLIERS and DIVIDERS are available for other frequency values with corresponding stability.



- **FREQUENCY STABILITY:** Drift Rate less than 1 part in 10^9 per day after one month's operation.
- **CRYSTAL OVEN:** Stabilized to better than 0.01°C . by temperature-sensitive resistance bridge. Oven contains no moving parts.
- **DISSIPATION IN OSCILLATOR CRYSTAL:** Stabilized at a power level less than one microwatt.

Write for Bulletin USO

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Dallas, Texas
LAkeside 6-7433

Burt C. Porter Co.
Seattle, Washington
ME 6828

Hycon Electronics
Pasadena, California
RYan 1-9381



"Bridging the Gap between Science and Technology ... in Electronics"

HYCON EASTERN, INC.

75 Cambridge Parkway Cambridge 42, Massachusetts
Affiliated with HYCON MFG. COMPANY, Pasadena, California

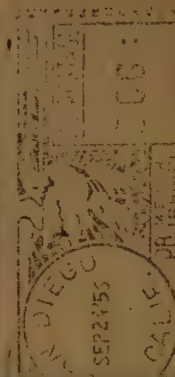
When ordering or seeking information
please mention Electronics Buyers' Guide.



GENERAL OFFICES
SAN DIEGO 12, CALIFORNIA

Avnet Electronic Supply Company
34-46 N. Moore Street
New York 13, New York

Attention: Mr. L. Avnet, President



thank
you
sir!

Avnet

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BEekman 3-5780

AVNET WESTERN SALES:
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From two 7 story warehouses right on the premises, AVNET distributes Bendix Connectors, Cannon Connectors, Sylvania Tubes & Transistors, Winchester, IPC, Bendix Special Purpose Tubes, Sprague Capacitors and Condensers, Westinghouse Aviation Bulbs, UG Connectors, JAN Switches and Circuit Breakers, Coaxial Cable, Fuses, JAN Resistors and Potentiometers, Amphenol Connectors, Cinch-Jones Plugs, Sockets, Strips. What a source of supply! Resident Govt. source inspection on the premises!

WEG/jaw



CONVAIR
A DIVISION OF GENERAL DYNAMICS CORPORATION

SAN DIEGO 12, CALIFORNIA
TELEPHONE: CYPRESS 6-6911

20 September, 1956

Avnet Electronic Supply Company
34-36 N. Moore Street
New York 13, New York

Attention: Mr. L. Avnet, President

Gentlemen:

In the past year, we here at Convair have devoted a great deal of attention to the performance of your company. We are very pleased to report that your performance has been excellent. The splendid cooperation and service extended to Convair in all your negotiations, by your Top Management Sales Personnel, is highly commendable.

Our normal production flow and scheduled delivery of airplanes is directly contingent upon our suppliers' promise to perform to his committed shipping schedules. You have not only maintained and fulfilled these promises, but have, on many occasions, accelerated your deliveries at our request. This letter is to express our sincere appreciation for your many extraordinary efforts and the fine business relationship we have enjoyed.

Very truly yours,

CONVAIR
A Division of General Dynamics Corporation
(San Diego)

W. E. Gleason
W. E. Gleason
Buying Supervisor

GENERAL OFFICES: SAN DIEGO, CALIFORNIA.

SIGNAL GENERATION EQUIPMENT



MICROWAVE SIGNAL GENERATORS
Models MSG-1, 2, 3, 4, 4A
950 to 11,500 mc

Model No.	Frequency Range
MSG-1	950 - 2400 mc
MSG-2	2150 - 4600 mc
MSG-3	4450 - 8000 mc
MSG-4	6950 - 10,800 mc
MSG-4A	6950 - 11,500 mc



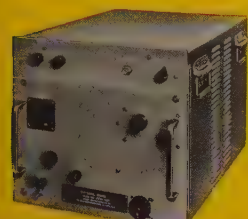
MICROWAVE SIGNAL GENERATOR
Model MSG-34
4,200 to 11,000 mc



MICROWAVE SIGNAL SOURCES
650 to 11,500 mc

MAXIMUM POWER AVAILABLE FROM POLARAD SIGNAL SOURCES IN THE RANGE OF 650 TO 10,750

FREQUENCY RANGE	MODEL SSR 650-1300MC	MODEL SSL 1050-2250MC	MODEL SSS 2140-4600MC	MODEL SSM 4450-8000MC	MODEL SSX 7850-10,750MC	MODEL SSXA 7850-11,500MC
AVAILABLE POWER RANGE (mw)	100 to 700	80 to 400	40 to 250	15 to 50	14 to 40	Available on Special Order



EHF SOURCE



EHF GENERATOR

EHF MICROWAVE GENERATORS AND SOURCES
9 plug-in units cover 18,000 to 50,000 mc

SIGNAL GENERATORS Basic Unit Model HU-2 Plug-In Tuning Unit Model No.	FREQUENCY RANGE	SIGNAL SOURCES Basic Unit Model HU-1 Plug-In Tuning Unit Model No.
G1822-1	18,000 — 22,000 mc	S1822-1
G2225-1	22,000 — 25,000 mc	S2225-1
G2427-1	24,700 — 27,500 mc	S2427-1
G2730-1	27,270 — 30,000 mc	S2730-1
G2933-1	29,270 — 33,520 mc	S2933-1
G3336-1	33,520 — 36,250 mc	S3336-1
G3540-1	35,100 — 39,700 mc	S3540-1
	37,100 — 42,600 mc	S3742-1
	41,700 — 50,000 mc	S4150-1

Model SG-1218, Signal Generator and Model SS-1218 Signal Source are available to cover the frequency range 12,400 to 17,500 mc



CODE MODULATED MULTIPLE-PULSE MICROWAVE SIGNAL GENERATOR
Model B
950 to 10,750 mc

4 Interchangeable Tuning Units

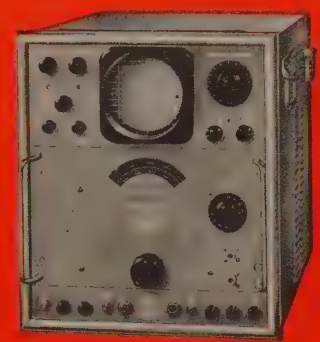
Frequency Range:
BL-1 — 950 to 2400 mc
BS-1 — 2150 to 4600 mc
BC-1 — 4450 to 8000 mc
BX-1 — 7850 to 10,750 mc



MICROWAVE SWEEP GENERATOR
Model ESG
1,000 to 15,000 mc 7 Interchangeable Tuning Units

Basic Unit: Model E-B			
MODEL	FREQUENCY RANGE		POWER OUTPUT
Model E-L1	1000 to	2,000 mc	70 to 900 mw
Model E-L2	1600 to	3,200 mc	70 to 900 mw
Model E-S1	2000 to	4,000 mc	70 to 750 mw
Model E-C1	3600 to	7,200 mc	20 to 350 mw
Model E-C2	4800 to	9,600 mc	15 to 125 mw
Model E-X1	6500 to	11,000 mc	15 to 80 mw
		15,000 mc	10 to 35 mw

SPECTRUM ANALYZERS

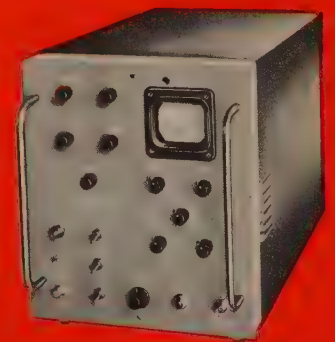


DIRECT READING SPECTRUM ANALYZER

Model TSA
Broadband 10 to 44,000 mc

5 Interchangeable Tuning Units

Model No.	Equipment
Model DU.....	Spectrum Display and Power Unit
Model STU-1.....	RF Tuning Unit 10-1,000 mc
Model STU-2A.....	RF Tuning Unit 910-4,560 mc
Model STU-3A.....	RF Tuning Unit 4,370-22,000 mc
Model STU-4.....	RF Tuning Unit 21,000-33,000 mc
Model STU-5.....	RF Tuning Unit 33,000-44,000 mc



MULTI-PULSE SPECTRUM SELECTOR

Model SD-1

Permits spectrum analysis of individual microwave pulses in a pulse group.



POLARAD ELECTRONICS CORPORATION

43-20 34th Street
Long Island City 1, N. Y.
EXeter 2-4500

MICROWAVE • ELECTRONICS • COLOR TV

MICROWAVE RECEIVERS



EXTENDED RANGE MICROWAVE RECEIVER

Model R
400 to 22,000 mc

7 Interchangeable Tuning Units

Basic Receiver: Model R-B

Tuning Unit Frequency Ranges:

*Model RR-T	400- 1,000 mc
*Model RL-T	950- 2,040 mc
*Model RS-T	1,900- 4,340 mc
*Model RM-T	4,200- 7,740 mc
*Model RX-T	7,300-11,260 mc
*Model RKS-T	9,500-15,600 mc
*Model RKU-T	14,700-22,000 mc

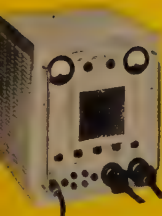
*U.S. Patent No. 2,774,243

CALIBRATED MICROWAVE FIELD INTENSITY RECEIVER SYSTEM

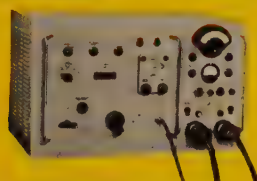
Model FIM
1,000 to 10,000 mc

Frequency Range:	1,000 to 10,000 mc
Tuning Unit	Frequency Range
*FIM-L	1,000 to 2,240 mc
*FIM-S	2,140 to 4,340 mc
*FIM-M	4,190 to 7,740 mc
*FIM-X	7,360 to 10,000 mc

*U.S. Patent No. 2,774,243



POWER SUPPLY



MONITOR UNIT



ANTENNAS



MICROWAVE ACCESSORIES



MICROWAVE ATTENUATOR

Model SIJ
Covering
4,000 to 12,400 mc

...continuously variable,
sub-tuned waveguide be-
hind cut off attenuator.
or use in making micro-
wave measurements.



SUB-MINIATURE S-BAND CAVITIES

Plate and Grid Pulse
Models Each Covering
2,750 to 3,000 mc

...only 3" long and 1"
diameter. Useful where
miniaturization and high
power are essential. Fre-
quency can be varied by
simple tool adjustment.



MICROWAVE TEST ANTENNAS

Six models covering
1,000 to 26,000 mc

...rugged, portable. For
field measurements, leak-
age measurements and
other laboratory uses.



ALL CERAMIC
KLYSTRON TUBE
Model ZV1009
VELOCITRON
1,600 to 6,500 mc

Reliable maintenance Service for life
available throughout the country is an
important part of every Polarad instrument.



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GENERAL LABORATORY EQUIPMENT



MICROWAVE TUBE TESTER

Model K-200

Tests all microwave tubes
as easily as ordinary
vacuum tubes.



PULSE JITTER TESTER

Model PJ-1

Measures

- (a) Pulse-to-pulse jitter
- (b) Pulse width jitter
- (c) Repetition rate jitter

Displays

- (a) Jitter magnitude
- (b) Jitter waveform



WIDE BAND VIDEO AMPLIFIER

Model VT

10 cps to 20 mc



5 PULSE CODED MULTI-PULSE GENERATOR

Model MP-1A

Generates 5 separate
pulses each with inde-
pendently variable width
and delay for missiles,
beacons, and other
systems.

TELEVISION EQUIPMENT

FILM AND SLIDE SCANNER SYSTEM

Model CC-1 and Model PT-210

For telecasting 16mm color film and
35mm color slide transparencies



Choice. . . .

Not Chance

has made Torwico a
leading supplier of magnetic components
for the military and for industry.



Our technical staff is a select group of seasoned engineers with long and successful experience in research and design of the type of magnetic components we manufacture. Equally mature and skilled are our key production supervisors and employees. These capabilities combined with the latest and best in necessary equipment and plant facilities assure our customers of the highest product quality obtainable.

While busily engaged in contributing its share to the nation's latest and most advanced defense weapons, Torwico continues to serve its ever growing list of satisfied customers who use its products in the many and varied industrial electronic applications.

TORWICO

ELECTRONICS, INC.

1090 Morris Ave., Union, N. J.

Magnetic Amplifiers

Tuned Circuits

High 'Q' Reactors

Chokes

400 CPS Power Transformers

VACUUM FIXED CAPACITORS

FIG.	TYPE		CAPACITY MMFD	PEAK VOLTAGE KILOVOLTS	RMS AMPERES ^①		NOMINAL DIMENSIONS ^②	
	NICKEL	COPPER			NICKEL	COPPER	LENGTH	DIAMETER
2 to 5 kV	L	JCSL	100, 250	3, 5		35	2 5/8	1 7/8
	M	JSLF	250, 450	3, 5		30	1 3/4	1 7/8
	B	JCSL	500, 750, 1000, 1500	3, 5		42	3 3/4	2 7/8
	B	JCSL	2500	2, 3		42	4	2 7/8
7.5 to 15 kV	M	JCSF	25, 40, 80, 120, 150	7.5, 10, 15		30	1 5/8	1 5/8
	L	JCS2	10, 20, 25, 50, 75, 100, 150	7.5, 10, 15		20	3 1/8	1 7/8
	B	JCS1	25, 50, 75, 100, 150	7.5, 10, 15		50	3 3/4	2 1/8
	B	JCS	250, 400, 500	7.5, 10, 15		42	4	3 1/8
	A	JCS	900, 1000	7.5, 10, 12		42	4 5/8	3 3/8
	D	MC1	500, 750, 1000	10, 15		75	4 1/8	4 1/8
	C	M	500, 750, 1000	10, 15, 20	21	120	8 3/8	5
	J	MM	1500, 2000	10, 15	35	125	9 1/4	6 1/8
	E	MMC1	2000	10, 15		125	5	6 1/8
	E	MMC	5000	10, 15		125	13	9 1/4
17 to 30 kV	K	Y	1, 2, 3, 4, 5	17	7		3 1/4	3 1/4
	K	X	5, 10, 15, 20, 25	17	7		3 1/4	1 1/8
	N	W	6, 12, 25, 50, 100	20, 25	10.5		4 5/8	2 1/4
	I	VC	6, 12, 25, 50, 75, 100, 150	20, 30		60	4 1/2	2 3/8
	I	VC	6, 12, 25, 50, 75, 100, 150	20, 30, 35	14	60	6 1/2	2 5/8
	I	VC	200, 250	26, 30	14	60	6 1/2	2 5/8
	M	JMF	50, 75, 100	20, 30		40	2 3/4	2 1/8
	H	JC2	25, 50, 75, 100	20, 30		42	4	3 1/4
	C	ML	500, 750, 1000	25, 30	21	125	9 1/4	5
	A	JHC	75	50, 60		42	4	3 1/2
35 to 60 kV	G	JC3	20, 40, 50, 60	35, 45, 55, 60		140	8 1/4	3 1/2
	G	JC4	75, 100, 125	35, 45, 55, 60		175	9 1/4	5
	G	JC5	200	35, 45, 55, 60		225	11 1/4	7
	J	MMH	450	35, 45, 55	21	125	9 1/4	6 1/8
	E	MMHC	1000	35, 40, 45		125	13	9 1/4
	E	MMHC	1000	35, 40, 45		125	13	9 1/4

① Current ratings can usually be doubled with forced air cooling. Water cooled units are also available.
② Nominal Dimensions are for the largest unit of each type.

NOTE: Intermediate capacities, feed-thru capacitors, and glass insulators are available.

The all copper construction of Vacuum Fixed Capacitors give high current ratings, long life and stability of operation.



Type MMC
2000 mmfd
15 kv



Type JCSL
1500 mmfd
5 kv



Type JCSF
150 mmfd
15 kv

TYPES R & RH VACUUM SWITCHES

VACUUM SWITCH RATINGS

For RF and DC Transfer Switching

Jennings Type	R5C	R1	R1K	R2	R8	RH6	RH7
Test Voltage (300 kc dry)—peak kv	20, 30	40, 50	30, 40	50, 60	70, 85, 95	85, 100	85, 100
Operating Voltage—peak kv	15	30	20	40	30 to 85	85	85
Continuous Current (rms amp)—dc ^①	50	50, 100	100, 200	50, 100	100, 200	50, 200	50, 400
—300 kc	30	35	100	35	100	100	100
—10 mc	25	25	50	25	50	50	50
—30 mc		15	25	15	25	25	25
RF Interrupting Power—kilowatts	50	250	500	250	1000		

① DC continuous currents may be increased as shown by using special connectors.

For DC Switching Under Load or Capacitor Discharging

Jennings Type	R5C	R1G	R1J	R2G	R8G	R9G	RH4G	RH1G	RH7G
Test Voltage (60 cycles dry)—peak kv	20, 30	40, 50	30, 40	50, 60	50, 70	50, 70, 85	30, 40	35, 45	85, 100
Max. Operating Voltage—peak kv	15	20	20	30	50	60	10	20	70
Continuous Current—dc amp ^①	50	50, 100	50, 100	50, 100	100, 200	100, 200	50, 600	50, 400	50, 400
DC Interruption—power in kw	5	25	50	25	50	100	250	200	250
—current in amp	5	25	50	25	50	100	250	200	250
Capacitor Discharge—decaying (initial amp to 30% in 1 millisecc or less) peak kv	500	1000	500	1000	1500	1500	10,000	5000	5000
	30	25	40	50	60	60	20	30	75

① DC continuous currents may be increased as shown by using special connectors.

② For DC interruption in continuous operation, neither power nor current rating should be exceeded.

For 60 Cycle Power Switching

Jennings Type	R1J	R2G	R8G	R9G	RH1G	RH4G
Operating Voltage Class—rms kv line to line } grounded Y capacitor load to 85% lag pf	2.5	8.25	12	15.5	2.5	2.5
Withstand Voltage—rms kv (60 cycle, 1 min. dry test)	19	28	36	50	19	19
Impulse Voltage—peak kv (1 1/2x40 μs NEMA test)	60	75	95	110	60	40
Operating Current—rms amp at 0% load (capacitor load) to 85% lag pf } Break only	100	60	100	200	100	600
—Make & Break	50	30	50	100	50	400
Interrupting Current (rms amp)—NEMA one time	1500	800	2000	2500	1500	2500
—NEMA ten times	1000	500	1500	1500	1000	1500
Short Time Surge Currents (rms amp)—NEMA 4 second	2000	500	2000	2500	2500	4000
—NEMA 10 cycle mem.	4000	1500	4000	5000	5000	10,000
Thermal Current (for 30° C. rise—rms amperes)	100	100	200	200	400	600

RELAYS USING VACUUM SWITCHES

Type R and RH Vacuum Switches are available from Jennings mounted as relays for indoor use. They may be mounted with contacts normally open or normally closed or two switches may be mounted in a single pole double throw arrangement. Either ac or dc solenoids may be used. Insulation between the switch and its actuating solenoid is provided by a 2 to 8 inch puller rod providing 40 to 100 kv insulation. CE grade phenolic laminate is recommended for dc or 60 cycle use; Grade G7 silicone glass laminate is recommended for radio frequency applications.

TYPE R VACUUM SWITCHES



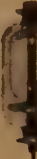
R1G



R2



R8



R9G

TYPE RH VACUUM SWITCHES



RH4G



RH1G



RH7G

CAPACITORS & RELAYS

Jennings
RADIO
VACUUM ELECTRONIC COMPONENTS

VACUUM VARIABLE CAPACITORS

FIG.	TYPE		CAPACITY MMFD	PEAK VOLTAGE KILOVOLTS	RMS AMPERES ^①		NOMINAL DIMENSIONS ^②	
	NICKEL	COPPER			NICKEL	COPPER	LENGTH	DIAMETER
2 to 5 kV	E	UCSL	4-250	3, 5		30	4 1/8	2 1/4
	B	USL	5-500	3, 5		40	5 1/2	2 3/8
	B	USLS	5-465 shorting	3, 5		40	5 5/8	2 3/8
	B	UCSL	5-500	3, 5		30	5	2 1/4
	A	UCSL	5-750, 7-1000	3, 5		42	7 5/8	3 1/8
	A	UCSL	20-2000	2, 3		42	8 1/4	3 1/8
7.5 to 15 kV	E	GCS	5-100	7.5, 10, 15		40	4 1/8	2 1/8
	I	UCSV	8-110, 125-250	7.5, 10, 15		50	5 1/4	2 7/8
	K	ATCS	10-150, 15-200	7.5, 10, 15		20	7	3 3/8
	L	UCS	5-200, 10-300	7.5, 10, 15		42	8 3/4	2 5/8
	L	UCS	10-400, 25-500	7.5, 10, 15		42	9	3 3/8
	A	UCSF	5-250, 12-500	7.5, 10, 15		45	7 3/4	3 5/8
	H	UCSX	25-700, 25-1000	7.5, 10, 15		45	9 7/8	3 3/4
	M	UCSXF	12-1000, 15-1200	7.5, 10, 15		45	10	4 1/8
	M	UCSXF	20-1500, 50-2000	7.5, 10, 12		45	10	5 1/8
	C	ECS	2-8, 3-30	10, 15		20	4	1 3/8
10 to 20 kV	K	TC	5-25	20	10.5	20	6 5/8	2 1/4
	K	ATC	10-50, 15-75	20, 30	10.5	20	6 7/8	3 1/8
	F	UC	50-250	10, 15, 20	21	60	11 1/2	5
	D	UXC	25-500	10, 15, 20	21	60	14	5
	M	UXCF	10-250, 20-500	10, 15, 20		60	9 7/8	4 3/8
	J	VMMC	50-1000, 100-2000	10, 15	35	125	15 7/8	6 1/8
	G	VMMC	100-5000	7.5, 10, 15		125	19	9 1/4
	I	UCSVH	8-35	25, 35		60	4 3/4	3
35 to 60 kV	F	UHC	10-75, 75-150	35, 45, 55, 60	21	60	12	5
	D	UXHC	25-150	35, 45, 55	21	60	14 5/8	5
	H	UCSXH	10-200	35, 45		60	10 1/2	4 1/2
	M	UCSXHF	25-450	35, 40		60	10 1/2	5 1/8
	J	VMMHC	10-250, 25-450	35, 45, 55		125	16	8 1/8
	N	VMMHCW	25-250, 50-400	35, 45, 55		500	17	9 3/8
	G	VMMHC	60-1000	35, 40, 45		125	19 3/8	9 1/4
	G	VMMHC	25-200	120		125	20 1/4	9 1/4

① Current ratings can usually be doubled with forced air cooling. Water cooled units are also available.
② Nominal Dimensions are for the largest unit of each type.
NOTE: A series of adjustable capacitors are available to cover the range of 8 to 1000 mmfd at 10 kV.

The Vacuum Variable Capacitors combine extreme high ratio of capacitance change with small physical size.



Type UCSL
7-1000 mmfd
5 kV



Type UCSXF
50-2000 mmfd
12 kV



Type GCS
5-100 mmfd
15 kV

VACUUM TRANSFER RELAYS



RA1



RD1



RE2



RE4



RM2

Jennings type	RD1	RD2	RD3	RA1	RE2	RE3	RE4	RM2	RM4	RA4
Contact arrangement	N/O	N/C	N/O	SPDT	SPDT	SPDT	SPDT	2PDT	4PDT	4PDT
Rated operating voltage	10 kv	10 kv	25 kv	300 v	10 kv	2.5 kv	25 kv	12 kv	12 kv	300 v
Test voltage between terminals	15 kv	15 kv	40 kv	1500 v	15 kv	3 kv	30 kv	18 kv	18 kv	1500 v
Test voltage terminals to ground	12 kv	12 kv	40 kv	1500 v	15 kv	3 kv	30 kv	18 kv	18 kv	1500 v
Continuous rf current	15 amp	15 amp	12 amp	25 amp	15 amp	15 amp	12 amp	15 amp	15 amp	25 amp
Contact resistance	.01 ohms	.01 ohms	.01 ohms	.01 ohms	.02 ohms	.02 ohms	.015 ohms	.010 ohms	.015 ohms	.01 ohms
Contact capacitance	.09 mmfd	.09 mmfd	.09 mmfd	17 mmfd	.25 mmfd	.25 mmfd	.25 mmfd	.33 mmfd	.33 mmfd	17 mmfd

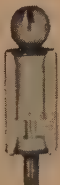
DC ACTUATING COILS
Standard actuating coils are rated for operation at 26.5 vdc and draw 2 to 10 watts of power. Coils rated for operation at 110 vdc are also available for most types.

HIGH VOLTAGE VACUUM RELAYS



MODEL JP 325 HIGH VOLTAGE PROBE
VOLTAGE RATINGS: 40, 50, or 60 KV peak.
VOLTAGE DIVISION RATIO: 325 to 1 to termination of 3 ft. of RG-58 A U cable.
INPUT IMPEDANCE:
Resistance: above 10^{12} ohms.
Capacitance: 4 mmfd.

FREQUENCY RESPONSE: High frequency limited by that of measuring instrument. (Internal resonances are above 200 mc.) Low frequency response is 100 cps if operating into 10 megohm shunt resistance; 1000 cps if operating into 1 megohm shunt resistance.



MODEL J-1003 HIGH VOLTAGE VACUUM TUBE VOLTMETER for use in pulse, rf, and 60 cycle circuits at voltages up to 100 KV.
VOLTAGE RANGES (peak volts full scale):
Single Ended: 2.5, 5, 10, 25, 50, 100 KV.
(By using Type JCD Series capacitor, these ranges can be more than doubled.)
OSCILLOSCOPE CONNECTION: 300 to 1 division ratio.

TYPE JCD 5 MMFD SERIES CAPACITOR attaches to HV end of the VDF 2.8 divider in the J-1003 meter and the JP 325 probe doubling the division ratio and the voltage rating in each case. Decreases total loading capacity of meter or probe from 4 mmfd to 2 mmfd.
Sold without corona sphere unless ordered.
VOLTAGE RATING: 60 KV peak.

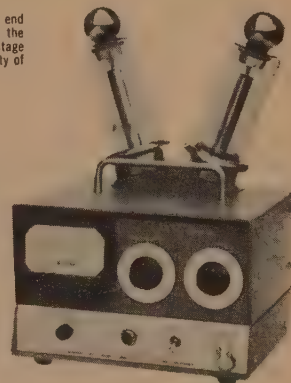
FREQUENCY RESPONSE: 10 cycles to 20 megacycles at full rated voltage and up to 50 megacycles for lower voltages with low harmonic content.

INPUT IMPEDANCE: 10^{12} ohms and 4 mmfd.

CALIBRATION ACCURACY: $\pm 3\%$ of full scale.

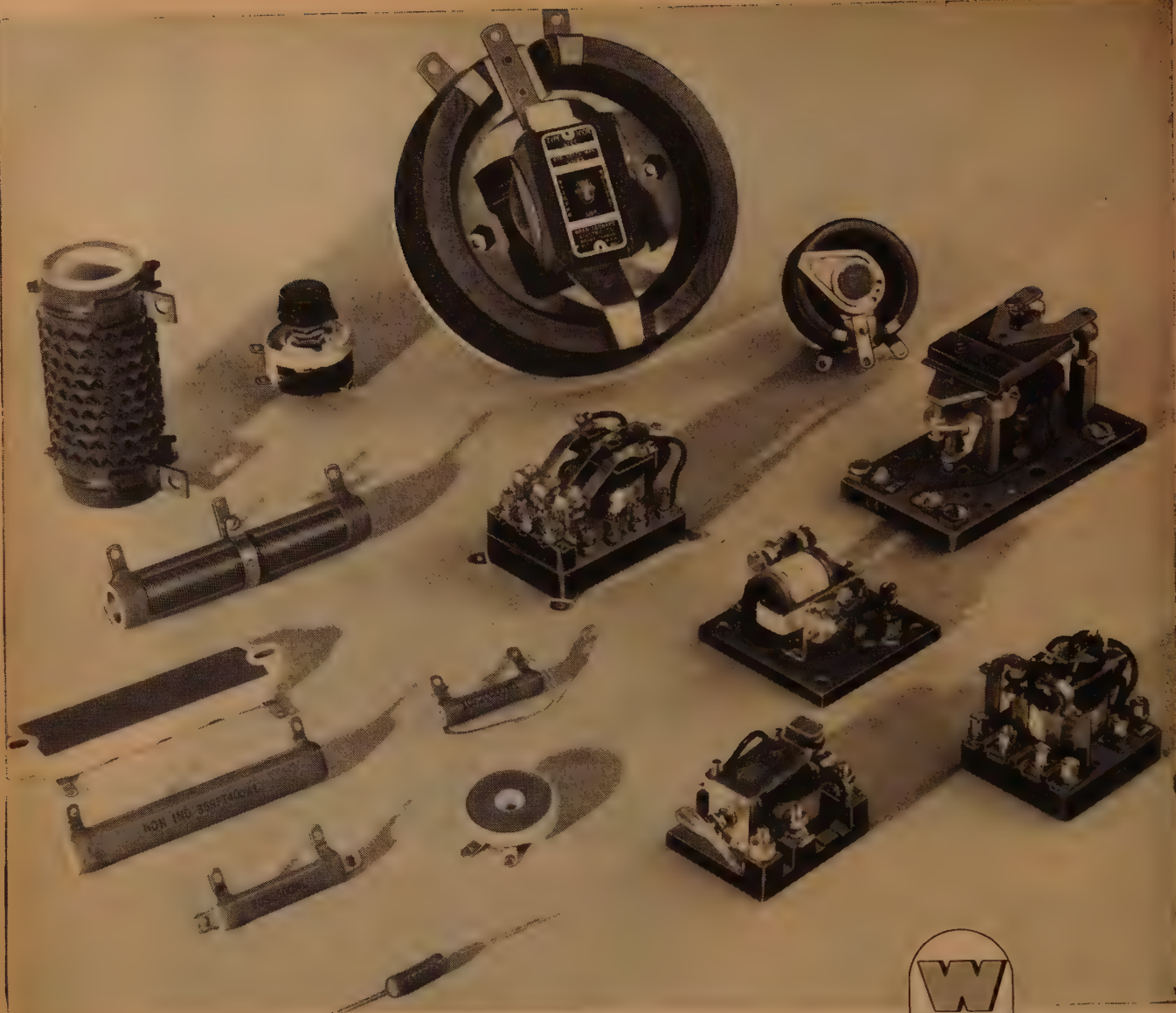
POWER SUPPLY: 117 volt, 50/60 cy.

DIMENSIONS: 16 1/4" x 11" x 9"



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TYPE "A" PLUGS, JACKS AND EYELETS Nylon Insulated and Non-Insulated. Current Capacity: 10 amps. Wire Sizes: #14 to #18



TYPE "B" PLUGS AND JACKS Nylon Insulated and Non-Insulated. Current Capacity: 5 amps. Wire Sizes: #18 to #22



TYPE "A" ANGLE PLUGS AND DOUBLE ENDED JUMPER CORDS Current Capacity: 10 amps.



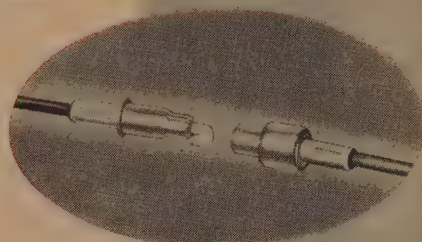
TYPE "C" SUB-MINIATURE PLUGS AND EYELETS Current Capacity: 1 amp. Wire Sizes: #20 to #22 or smaller



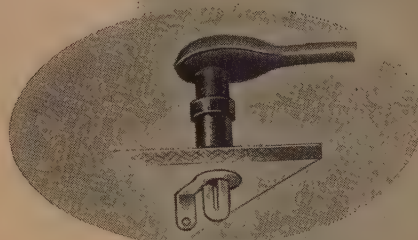
TYPE "S" PLUGS AND JACKS Nylon Insulated. Current Capacity: 15 amps. Wire Sizes: #14 to #18



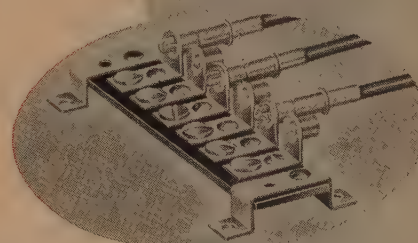
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Wire to Panel



Wire to Terminal Strip



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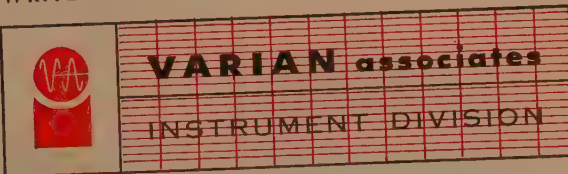
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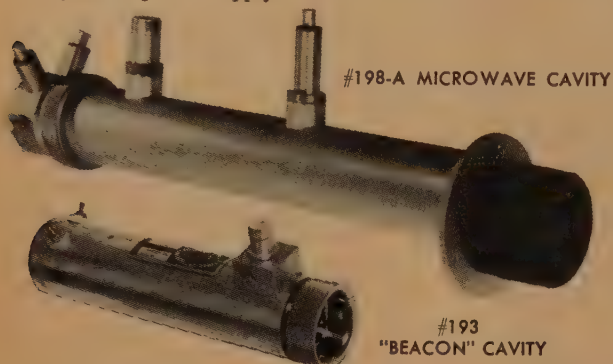
AMERAC'S PRECISION MICROWAVE PRODUCTS

MICROWAVE CAVITIES

Amerac, Incorporated manufactures a comprehensive line of co-axial line cavities, utilizing various standard tubes, for numerous microwave applications including aircraft, guided missile and beacon work.

FEATURES

These cavities have such features as—single control tuning, fixed feedback, rugged anti-backlash tuning mechanism, accurate Root counter (optional), adjustable type "N" or "BNC" 50-ohm inductive loop coupling, convenient tube receptacle for quick replacement, long-duration R.F. output stability, operates on inexpensive power supply.



SPECIFICATIONS

Model	Frequency Range	Type	Cavity Mode	Tube Type
192-A	2400—4000 MC	Pulse	3/4	2C36
192-AB	750—2000 MC	Pulse	1/4	2C36
192-B	750—2000 MC	CW	1/4	2C36
193-A	2400—4000 MC	Pulse	3/4	2C36
194	2300—3300 MC	CW	3/4	2C39B
194-A	2300—3300 MC	Pulse	3/4	2C39B
195	2000—3100 MC	CW	3/4	6442
195-A	2000—3100 MC	Pulse	3/4	6442
191-A	2400—3400 MC	Pulse	3/4	Pencil Triode
198-A	800—2050 MC	CW	1/4	6BM6
198-A	2050—4200 MC	CW	3/4	6BL6
198-A	800—2050 MC	Pulse	1/4	5837
198-A	2050—4200 MC	Pulse	3/4	5836

FOR EXTREME ENVIRONMENTAL CONDITIONS

Engineered to operate under extreme conditions of shock, vibration, temperature and humidity, these cavities have been designed to withstand 2000 cycles at 15 G. 200 MC tuning range.



SPECIFICATIONS

Model	Frequency Range	Type	Cavity Mode	Tube Type
#500	2000—3100 MC	CW	3/4	GL-6442
#501	2000—3100 MC	Pulse	3/4	GL-6442
#502	3100—3550 MC	CW	3/4	GL-6442
#503	3100—3550 MC	Pulse	3/4	GL-6442

CO-AXIAL LINE WAVEMETERS



FOR LABORATORY USE, Amerac, Incorporated manufactures a precision wavemeter that is handsomely finished with golden anodized aluminum panel and hand-rubbed walnut cabinet. The panel is sloped for easy observation.

These models feature high accuracy of measurement ($\pm 0.02\%$), high frequency stability (10°C to 40°C), extreme mechanical stability, ease of operation, rugged components and tri-plated surfaces.

GENERAL SPECIFICATIONS

Type "N" constant impedance input connector. BNC or UHF co-axial fitting for external video connection. Power handling capability: absorption—.5mw to 1 watt; transmission—1mw to 1 watt. Peak power: up to 25 watts (transmission).

INDIVIDUAL SPECIFICATIONS

Model	Frequency Range	Loaded Q	Width	Depth	Height	Net Weight
#228*	900—2400 MC	1000	15"	9 3/4"	7 3/4"	13 1/2 lbs.
#229	2300—4500 MC	1500	8"	6 1/2"	5"	4 3/4 lbs.
#230	3500—6000 MC	1500	8"	6 1/2"	5"	4 3/4 lbs.

*Model 228 has a direct-reading frequency control dial.

FOR FIELD USE, Amerac, Incorporated manufactures two co-axial line wavemeters covering the "S" band, the Model 131 (Amerac's version of the popular military model TS-117) and the inexpensive, C&D Wave-meter Model 232.

Both models feature a rugged metal case, finished in gray, baked enamel; highly sensitive indication of resonance; rugged components; precision cavity assembly and anti-backlash device, for high accuracy.



GENERAL SPECIFICATIONS

Input connections are two type "N" jacks. R.F. detector is a type 1N21B silicon diode. They have a ruggedized 50 micro-ampere indicating instrument for abusive field work and all silver-plated parts are Rhodium flashed to minimize corrosion.

INDIVIDUAL SPECIFICATIONS

Model	Frequency Range	Loaded Q	Length	Depth	Width	Net Weight
#131	2400—3400 MC	1000	6"	3 1/4"	5 1/2"	3 1/2 lbs.
#232	1800—3800 MC	1000	8"	2 1/4"	7 3/4"	2 1/2 lbs.



Amer-Dial

For multi-turn devices. Direct reading to 1/1000th of a turn. Accurate to 1 part in 10,000. Readings up to 9999 with up to 100 turns. Unobstructed knurled dial. Regular and illuminated.



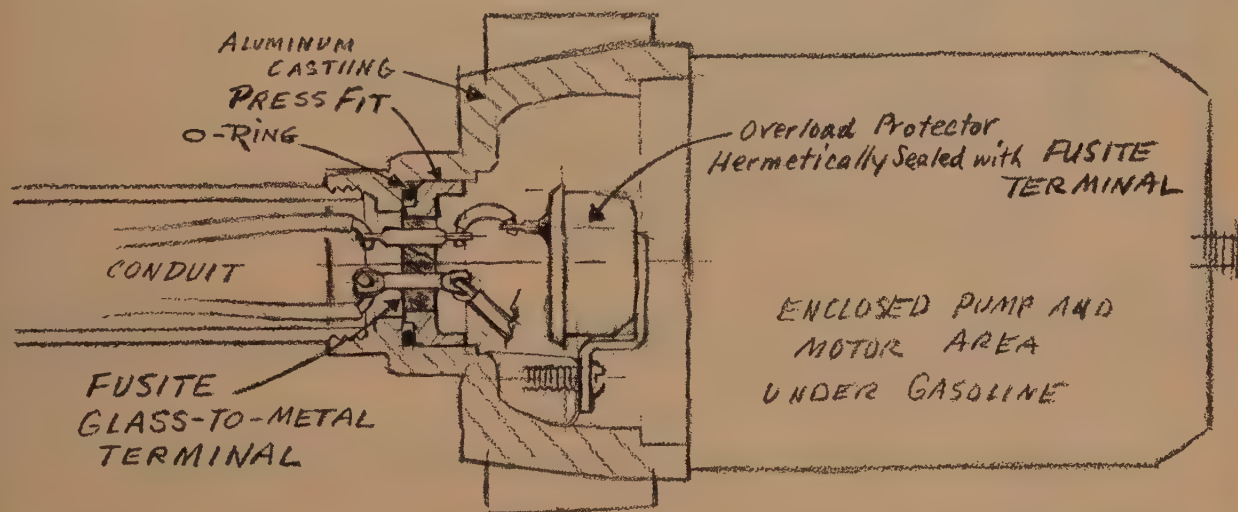
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- Widely Accepted for Use In Military Equipment
- Maximum Air Delivery For Efficient Filter Action



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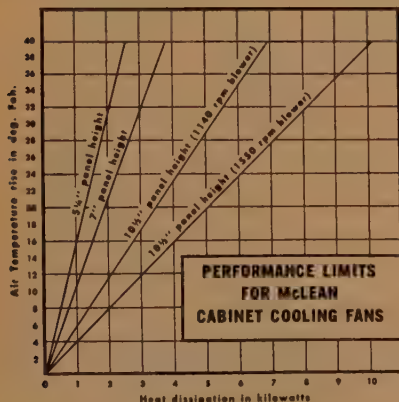
*Pat. Applied For

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THREE STANDARD MODULAR PANEL HEIGHTS COVER WIDE RANGE OF AIR DELIVERIES

Excessive or fluctuating temperatures in electronic racks make thousands of tubes die young . . . make crystals, transistors and sensitive electronic equipment perform erratically. System failure at critical times is disastrous . . . replacement costs are high. That is why leading manufacturers install McLEAN Fans and Blowers in Computers, Control Systems, Data Processing Systems,

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SPECIFICATIONS

PANEL HEIGHT	MODEL	DEPTH	CFM	REMARKS	TYPE
5 1/4"	2A300	7 1/2"	80	Standard Rack Mounting For Trim Strip Racks Basic Model For Special Clearance Inside Height 7"	Blower Blower Blower Propeller Blower
	2E300	7 1/2"	80		
	2B300	7 1/2"	150		
	3E40	5 7/8"	190		
	2P408	11 1/8"	300		
7"	2E55	8 1/4"	250	Basic Model No Projecting Outlets Vertical Discharge 400 cps Model	Propeller Blower Blower Blower Propeller
	2E408	10"	300		
	2A408	8 1/4"	300		
	2E408V	8 3/4"	300		
	2E55H	8 1/4"	310		
10 1/2"	2E80	8 1/8"	500	Basic Model Slow Speed Model 22" Rack Width Basic Model	Propeller Blower Blower Blower
	2B610	13 1/4"	550		
	2A610	13 1/4"	800		
	2E610	13 1/4"	800		

MODIFICATIONS OF ABOVE MODELS CAN BE MADE TO 24" OR SPECIAL WIDTH RACKS TO ORDER

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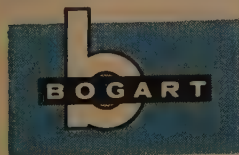
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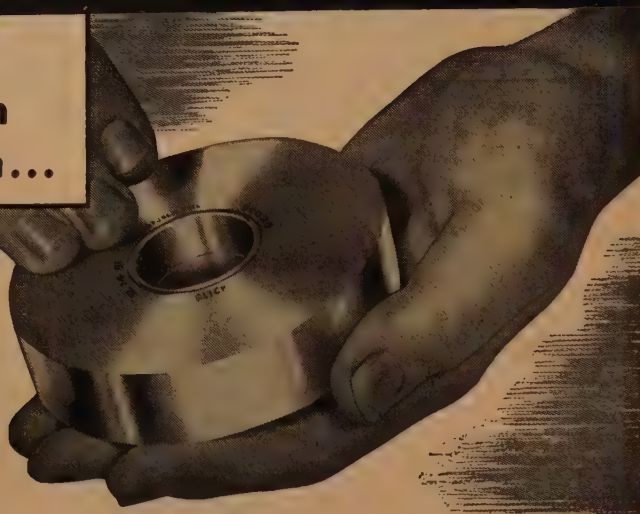


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Gage in Inches	Yield in Sq. In Per Pound	Gage in Inches	Yield in Sq. In. Per Pound
.00017	60,000	.00080	12,800
.0002	51,000	.00090	11,350
.00023	44,600	.0010	10,250
.00025	41,000	.0015	6,800
.00030	34,000	.0020	5,100
.00035	29,200	.0025	4,100
.00040	25,600	.0030	3,400
.00045	22,700	.0035	2,930
.00050	20,500	.0040	2,550
.00065	15,700	.0050	2,050
.00070	14,600		

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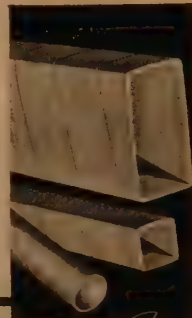
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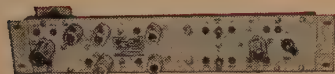
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Finest color film chains, colorplexing, transmitting, analyzing, monitoring, testing equipment.



617-BR AUTOMATIC BALANCE CONTROL FOR ALL COLORPLEXERS

(Regardless of Manufacture)

An ingenious circuit locks the entire encoding equipment in balance within 20 seconds after being turned on. Thereafter balance is held under even the most difficult operating conditions.



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Finest in quality, lowest in price. 3V provides greatest latitude in selection of color films. Designed specifically for broadcast application, requires little space. Multiplexes 35 or 16mm film, slides, opaques.



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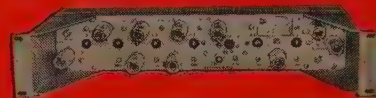
Newest test unit produces new type of wave forms for testing any part or all of a TV or pulse system for amplitude and phase characteristics. "Go-No-Go" indication simplicity.



New secondary phase standard for accurate reading to .01°

1604-AR PHASE MAGNIFIER

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1604-AR PHASE MAGNIFIER

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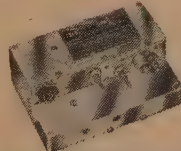
Direct FM Transmitters Crystal controlled 215-235 megacycles. 125kc deviation.



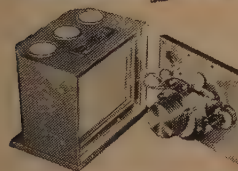
Model 1462
6" x 4 1/4"
x 3 3/4"
50 to 80
Watts



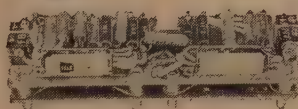
Model 1463
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15 to 30
Watts



Model
1472
4" x 1.5"
x 2.7"
2 Watts



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Model 800-4.5" x 1.3" x 1.4"

SUB-CARRIER OSCILLATOR. Deviation stability $\pm 1\%$ of band width. Deviation linearity less than 1% of band width under all conditions measured from a straight line drawn between end points.



636-B CHROMALYZER

Portable Precision Color Bar Generator for checking color broadcast studio and transmission facilities, receivers and monitors. Can be tied into a system. Provides complete composite color signals at 100 or 75% chroma.



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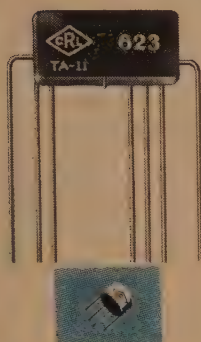
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Also choice of TA-6 and TA-7 single-stage Transpecs* to meet other sub-miniature design requirements.

*Trademark.

Write for Bulletin 42-235.



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1/2-w. standard — For radio, TV. Single, twin, or dual-concentric. 15/16" diam. 250 ohms to 10 meg.

1/10-w. sub-miniature — For hearing aids, communications, computers. 5/8" diam. 500 ohms to 10 meg.

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Miniature



Radio and TV



Wire-Wound

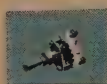
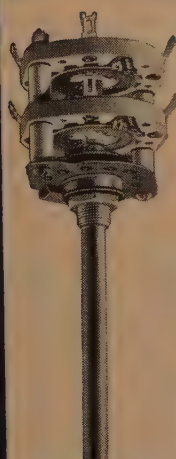
ELECTRONIC SWITCHES

Rotary — 15/16" to 1-5/8" diam. Phenolic or Steatite insulation. Single or multiple sections.

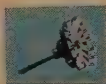
Medium-duty power — For transmitter, industrial control, laboratory testing, military, commercial. 2-13/16" diam. 7-1/2 amp. rating at 110 v. 25,000 cycles minimum.

Specialized — Lever, slide, tone, tuner sections, others.

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Miniature
Rotary Switches



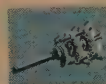
Rotary-Action
Flat Switches



Rotary
Power Switches



Lever-Action
Switches



Ham-Type
Switches



CERAMIC CAPACITORS

TC-BC — Discs, tubulars, 150 v to 6,000 v.d.c.w. 1 mmf. — 0.1 mf. TC available + 100 to — 5250.

High voltage — high accuracy — High-voltage types, up to 30,000 v.d.c.w. High-accuracy types, $\pm 1\%$ tolerance, 500 v.d.c.w., up to 2,500 mmf.

Trimmer — Tubular or flat. Meet JAN-C-81 specifications. 1 mmf. to 400 mmf., 500 v.d.c.w.

Specialties — Feed-thru, stand-off, button-shape, potted, other capacitors.

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Tubular



Disc



High-Voltage



Trimmer



Specialties

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Grade L-5A Steatite . . . High Alumina, 85% and 95% bodies . . .

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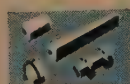
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Impervious to common acids. Can be metallized to close tolerances.

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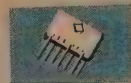
Complete radio-TV circuits, amplifiers, oscillators, detector networks, resistor networks—including capacitors, resistors, wiring, and inductance manufactured to your specific performance limits.

1/2-w. resistors meet applicable MIL-R-11 specifications. 50 ohms to 50 meg. Capacitors up to .01 mmf.

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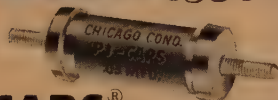
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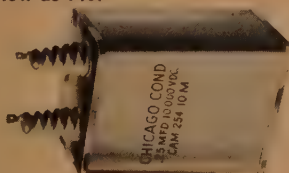
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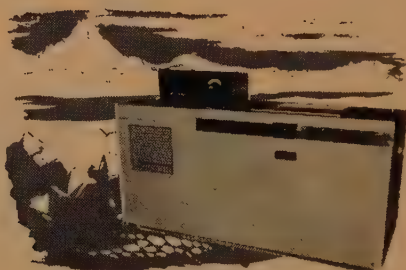
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... at minus 120° F or plus 500° F!



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$$I = \frac{E}{\sqrt{R^2 + (WL - \frac{1}{WC})^2}}$$

FORMULA

for LONG LIFE

THE KEY COMPONENT

$$Z = \sqrt{R^2 + (WL - \frac{1}{WC})^2}$$

$$f = \frac{1}{2\pi\sqrt{LC}}$$

El-Menco Dur-Mica CAPACITORS

Rugged Endurance up to 18 years!

A series of the toughest trials prove El-Menco Dur-Mica DM15, DM20 and DM30 capacitors outlast all others under accelerated conditions of 1½ times rated voltage at ambient temperature of 125° centigrade. Can be used at higher operating temperatures with slight voltage derating. Longer life and greater stability made possible by specially treated phenolic casing.



DM 42
Up to 65,000 mmf
at 300 WVDC
Up to 40,000 mmf
at 500 WVDC



El-Menco Dur-Mica Capacitors meet all humidity, temperature and electronic requirements, including military specifications.

WITH NEW CRIMPED LEADS.

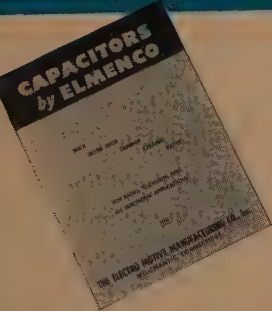


Improved parallel leads for greater rigidity and faster assembly. These parallel leads simplify use on miniature printed circuit boards in television, guided missiles, hearing aids, electronic brains, air conditioning and other government and civilian applications.

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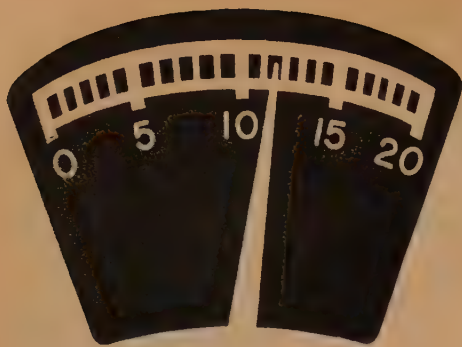
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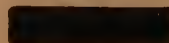
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WITH CUP



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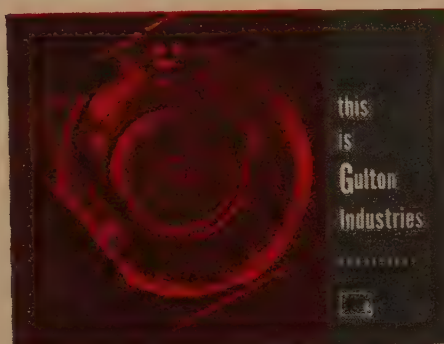
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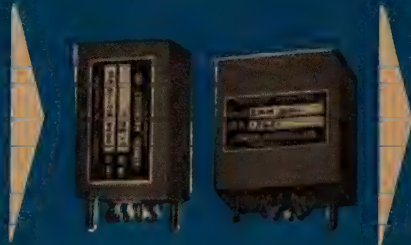
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VOLTAGE

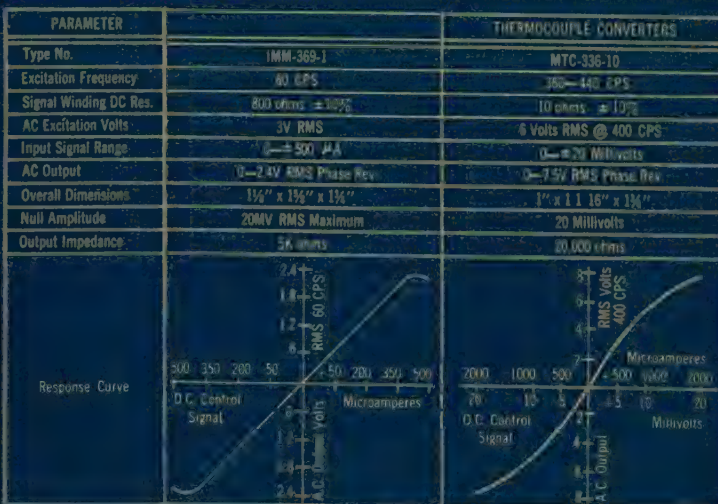
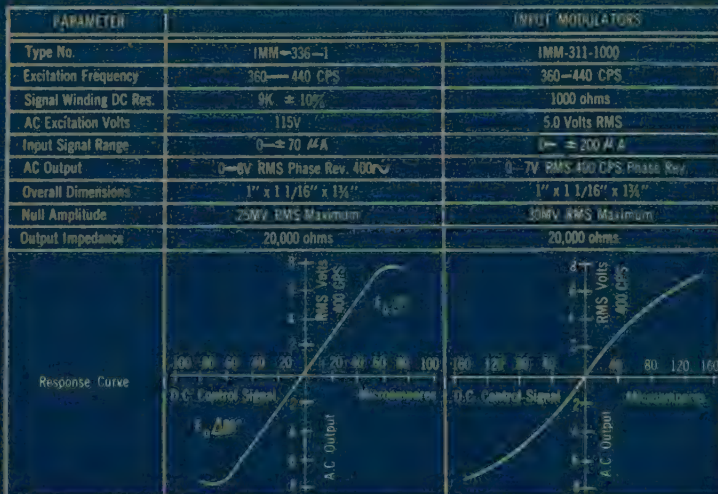


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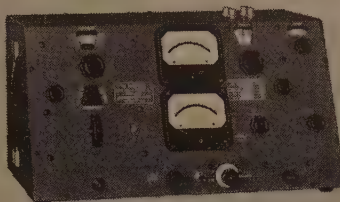


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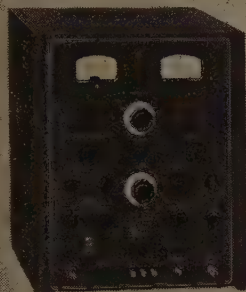
Q METER TYPE 190-A



Q METER TYPE 260-A



RX METER TYPE 250-A



SWEEP SIGNAL GENERATOR
TYPE 240-A



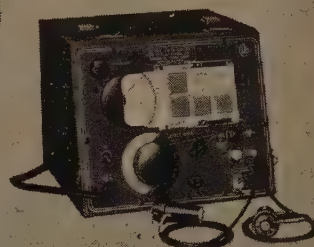
FM-AM SIGNAL GENERATOR
TYPE 202-E



RF VOLTAGE STANDARD
TYPE 245-A



UNIVERTTER TYPE 207-E



FILM GAUGE TYPE 255-A

Q METERS

Type	Freq. Range	Q Range	Tuning Capacity Range	Q Accuracy	Price
260-A	50 kc to 50 mc	10 to 625	30-450 mmf	5% to 30 mc	\$775.
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Type	Freq. Range	Output Range	Modulation FM AM	Application	Price
202-E	54-216 mc	0.1 to 200,000 μ v	0-240 kc 0-50%	General	\$1090.
202-F	175-250 mc	0.1 to 200,000 μ v	0-240 kc 0-100%	Telemetering	\$1075.

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Type	Freq. Range	Output Range	Modulation FM AM	Markers	Price
240-A	4.5 to 120 mc	1.0 to 300,000 μ v CW 1.0 to 100,000 μ v	$\pm 1\%$ to $\pm 30\%$ Center Freq.	30% Crystal & Pip.	\$1585.

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Type	Freq. Range	Output Range	Modulation	Application	Price
211-A	88-140 mc	0.1 to 200,000 μ v	0-100% am	Omni-Range Rcvrs.	\$1800.

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Type	Freq. Range	Output Range	Modulation	Application	Price
232-A	329-335 mc	1.0 to 200,000 μ v	0-100% am	Glide Slope Rcvrs.	\$1700.

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250-A	0.5 to 250 mc	15 to 100,000 ohms	0-20 μ mf	0.001 μ h-100 mh	\$1320.

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Type	Freq. Range	Calibrated Out.	Output Impedance	Application	Price
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UNIVERTTERS

Type	Freq. Range	Output Range	Modulation FM AM	Accessory to	Price
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207-F	0.1 to 55 mc	0.1 to 100,000 μ v	0-240 kc 0-50%	202-F	\$380.
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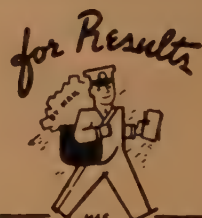
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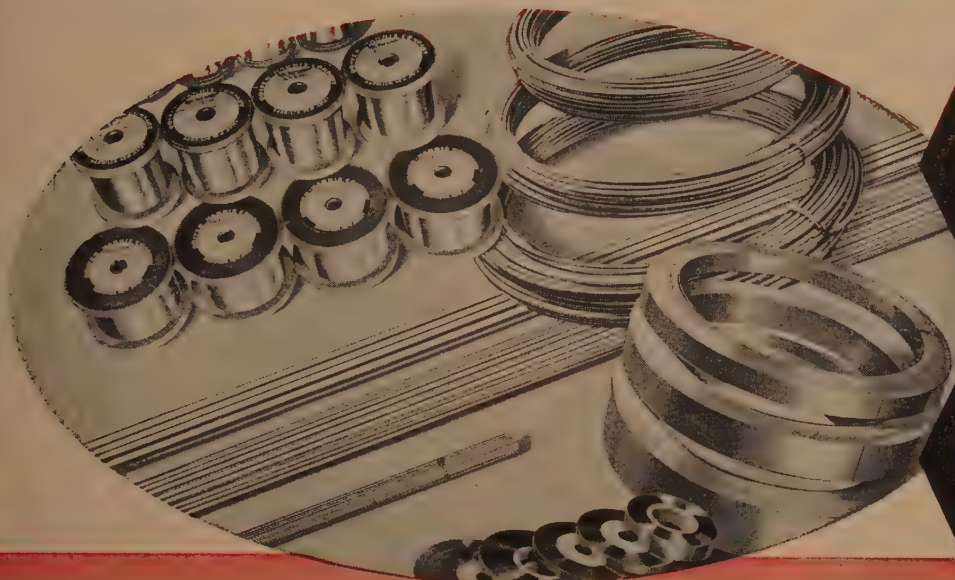
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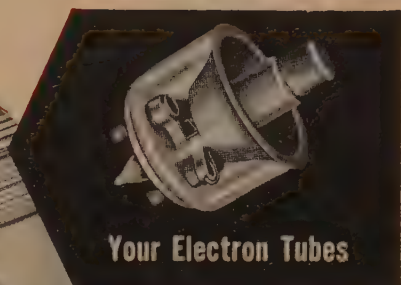
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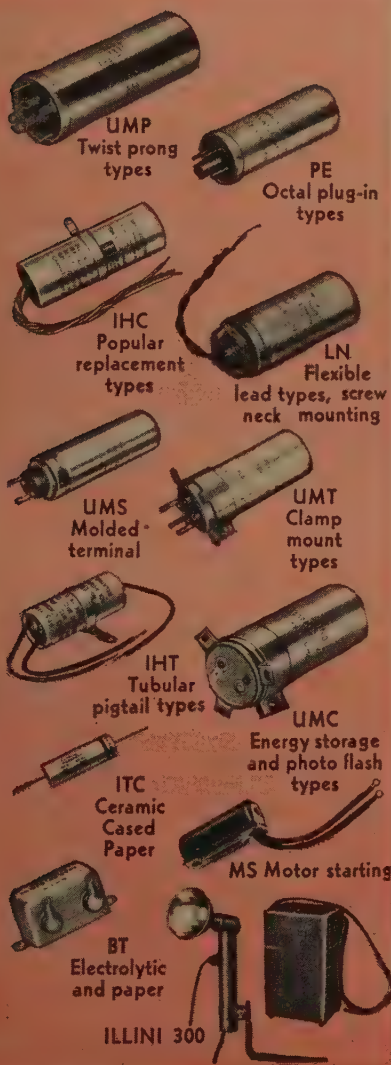
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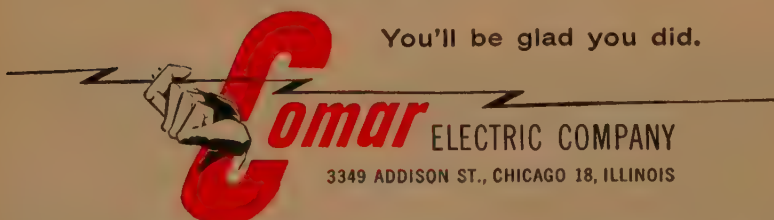
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SILICON and SELENIUM Rectifiers

Sarkes Tarzian area type silicon rectifiers are made by a special process that provides optimum forward to reverse ratios and long useful life. Current ratings for half wave application range from 500 milliamperes dc to 15 amperes dc and voltage ratings per unit range from 50 to 400 volts peak inverse. Small size coupled with high efficiency and allowable high ambient temperatures make silicon rectifiers the practical component for most applications that require dc power. Our staff of competent power conversion engineers is ready to consider your application for prompt recommendations. Write, wire or phone.

Type M silicon rectifiers are rated at 500 milliamperes dc with peak inverse voltage ratings of 100 to 400 volts. Connection is made by means of end ferrules that fit standard fuse clips. Low cost holders are available.

Type N—Four basic terminal arrangements are available in the N series of silicon rectifiers. (1) Axial leads, (2) Axial stud and lead, (3) Axial stud and lug, (4) Axial studs. The convection cooled current rating is 500 milliamperes and the conduction cooled rating is 1 ampere provided an adequate heat sink is used. Voltage ratings range from 50 to 400 volts peak inverse.

Type P—The P series of silicon rectifiers includes the same end terminal designs as the N series. The dc current ratings, however, are 1.5 amperes with convection cooling and 5 amperes when a heat sink is used. Voltage ratings range from 50 to 400 volts peak inverse.

Type L silicon rectifiers are rated at 1.5 amps in half wave circuits with peak inverse voltage ratings of 100 to 400 volts. Mounting is by means of ferrules that fit standard fuse clips. Low cost holders are available.

Write for complete information

Type LF—Use of a special heat sink arrangement and hardware allows a current rating of 5 amperes dc from the Type L rectifier. Precautions must be taken, however, to provide adequate cooling area to limit case temperature. Voltage ratings range from 100 to 400 volts peak inverse.

Type Q—The Q series of rectifiers is provided with axial studs only, however, it is possible to attach special end terminals. The current rating is 7.5 amperes in convection cooled applications and 15 amperes when a heat sink is used. Peak inverse voltage ratings range from 50 to 300 volts.



Type M



Type N



Type P



Type L



Type LF



Type Q

SILICON

A Rectifier for Every Application

A wide selection of Selenium Rectifier designs is offered to the design engineer by the Sarkes Tarzian line. It is possible to provide ratings of a few milliamperes to thousands of amperes and from a few volts to thousands of volts by using series, parallel and series-parallel arrangements. Whatever your power conversion problem write for specific recommendations for your application.

Standard and High Temperature—Sarkes Tarzian standard and high temperature selenium rectifiers offer the design engineer a variety of combinations. The standard line includes fourteen basic cell sizes and the high temperature line includes nine cell sizes. Maximum permissible cell temperature on high temperature types is 150°C.

Radio-Television Types—Radio and Television type selenium rectifiers are mass produced under tight quality control standards. The resultant good availability, good quality and low price have made these types popular in a variety of electronic equipments.

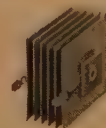
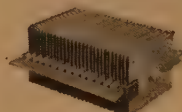
Embedments—Embedments provide a small unit at relatively low cost when extreme environmental or shock conditions are anticipated. Six basic cell sizes are available to assemble various combinations.

High Voltage—Series stacking of cells in glass or phenolic enclosures increases voltage ratings and half wave units are available with ratings as high as 7500 volts peak inverse with current ratings as high as 25 milliamperes. Axial leads or ferrules are available for connection.

Remember—whatever your problem on power conversion, let Sarkes Tarzian applications engineers provide you with the practical answer.

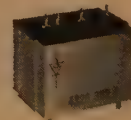
Send for your copies of the Selenium and Silicon rectifier handbooks.

Standard and High Temperature



Radio-Television

Embedments



High Voltage

SELENIUM

Sarkes Tarzian, Inc. RECTIFIER DIVISION

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In Canada: 700 Weston Rd., Toronto 9, Tel. Rogers 2-7535 • Export: Ad Auriema, Inc., New York City

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and Usage." Free!



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Plasticote Miniature Wire and Cable — single or multiple conductors bare or tinned, solid or stranded copper with thin wall Plasticote insulation.



Plasticote Hook-up Wire — made to conform to the requirements of Specification JAN-C-76 and MIL-W-76A in solid or stranded constructions.



Plasticote Coaxial Cable—(RG/U) to conform to JAN-C-17A and MIL-C-17B requirements are available. Special designs of coaxial cable transmission lines available.



Plasticote Intercom Cable — multiple conductors bare or tinned, solid or stranded annealed copper with tinned copper shield and Plasticote jacket.



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A Subsidiary of Miami Copper Company



Plasticote Multiple Conductor Cable — multiple conductors (No. 16 AWG to No. 26 AWG) bare or tinned, solid or stranded annealed copper are available.

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Chester Plasticote is the rugged insulation that adds years to wiring life. Super-durable, Plasticote also offers the smooth pliable qualities that make Chester conductors easier to work with. Specifying Plasticote means you raise wiring quality at the same time you increase wiring production! Call or write for wire samples and bulletins.



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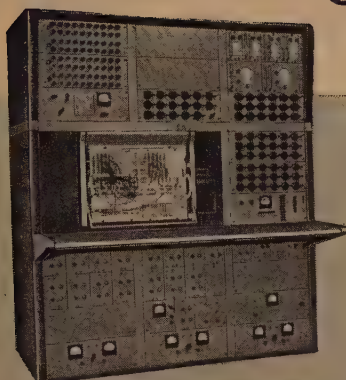
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New REAC 400 Series

- Building-block construction
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This "400" is the newest model of the famous REAC (Reeves Electronic Analog Computer). The new modular construction allows assembly of exactly the computer necessary to do a particular job or expand an existing installation. Problem check, a new Reeves development, permits verification of problem solutions before problem is run. New high speed servos and improved components facilitate high speed real time operation.

20 IG Integrating Gyro

Extremely low drift rate, high sensitivity



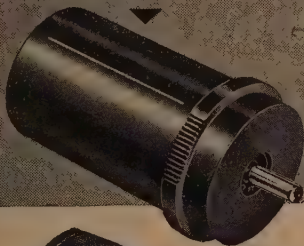
20 R.G. Rate Gyro

Small size. Fully floated construction.



R-600 Resolver

functional accuracy better than 0.05%

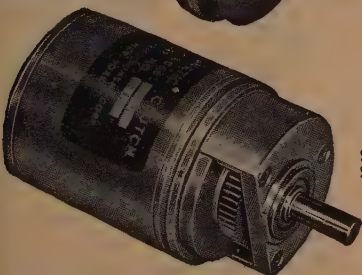


R-150 Resolver

miniature version of R-600.



Series SR 6066



precision GYROS

Single-degree-of-freedom, viscous damped. Features fully floated construction that reduces friction, yet provides extreme resistance to shock. Small size, high precision. Ideal for airborne or shipborne equipment for space stabilization, rate tracking control, or rate measurement.

precision RESOLVERS

The highest precision resolvers commercially available. Small size makes them ideal for use as computing element in military and precision industrial electronic systems. Special wide band units are available for irregular wave shapes having rise times as low as one micro second. Units are built directly to required accuracy without selection or culling.

MAGNETIC CLUTCHES

High quality magnetic clutches for all control applications. Single and double-ended models, as well as combination that provides effective SPDT action. Standard and Miniature models, with or without crown tooth construction. Quick acting, high torque.

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standard (1/4" shaft) and miniature (1/8" shaft) sizes
Shaft hangers, shafts, precision gears, differentials, couplings, terminal blocks, limit stops, dial assemblies, etc. Easy mounting on convenient slotted plate. Changes easily made, parts re-usable. Tremendous time-saver in prototype work on servo and instrumentation systems.

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437

Reeves Sub-contract Service: Our facilities are available to you for help on computing systems, gun fire control, and precision electronic systems of any kind. For complete information, contact Reeves Sub-contract Department.

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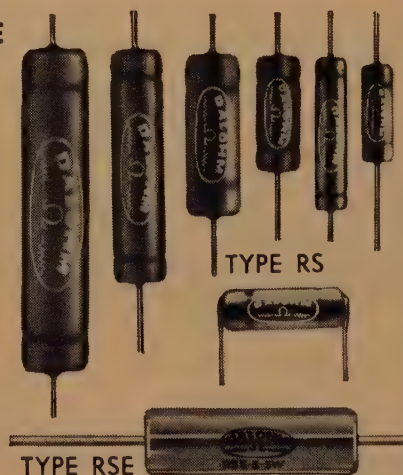
You can depend on  WIRE WOUND RESISTORS

Carefully designed, precision made to meet all space problems and for all applications where equipment must meet the most severe environmental, shock, vibration, and humidity conditions. Smallest in size; completely coated with special silicone material; welded from terminal to terminal; impervious to moisture, salt ions, vapor gases.

TYPES RS, RLS, RSE

Five wattage ranges—2,3,5,7 and 10, six sizes; resistance range from .05 ohm to 175K ohms depending on type; tolerance range .05% to 3%. Type RS with axial leads; Type RLS with radial leads; Type RSE housed in metal tubing for tremendous shock and vibration resistance.

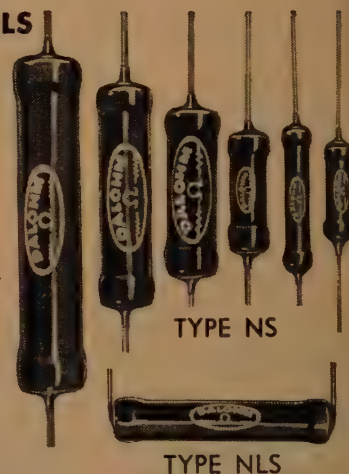
Write for Bulletins
R-23B, R-30B, R-25B



TYPES NS, NLS

Newly conceived NON-INDUCTIVE resistors. Five wattage ranges—2,3,5,7, and 10, six sizes; resistance range from 2 to 37K ohms; tolerance from .05% to 3%. Type NS with axial leads; Type NLS with radial leads.

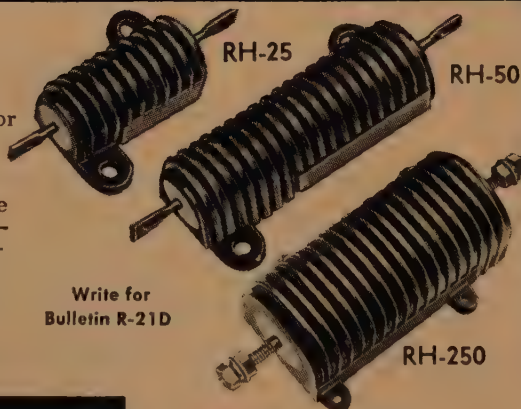
Write for
Bulletin R-34A



TYPE RH

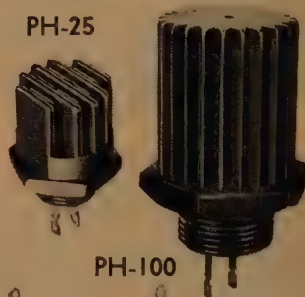
Die-cast, black anodized radiator finned housing. Lugs provided for horizontal mounting. Three wattage ranges—25,50,250; resistance range 0.1 to 100K ohms. Tolerance .05% to 3%.

Write for
Bulletin R-21D



TYPE PH

New ruggedized Powerhouse resistor for vertical panel mounting. Black anodized finned aluminum housing. Two wattages 25 and 100; resistance range from 0.1 to 60K ohms; tolerance .05% to 3%.



SPECIAL PROBLEMS?

Just ask us; we'll help you find the solution.

TYPES WWL, WWA, WWP, WWR

Encapsulated for hermetic sealing; non-inductive pi wound; powered at .1 watt to 2 watts; resistance range 0.1 ohm to 5 megohms; sizes from sub-miniature 1/8 by 3/8 inch to 1/2 by 2 inches; .05% to 3% tolerances.

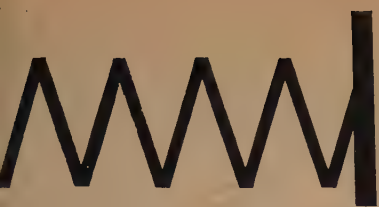
Write for Bulletin R-26B



DALE PRODUCTS, INC.

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EXPORT DEPT.
Pan-Mar Corp.
1270 Broadway, New York 1, N. Y.



if your ups and downs involve
DEPOSITED CARBON RESISTORS...

DALOHM has the answer!

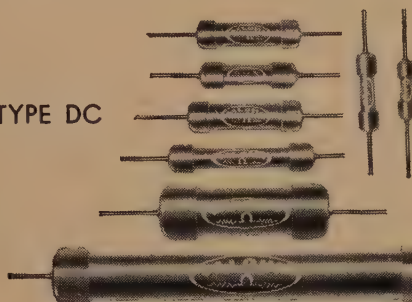
Assure accurate, dependable performance. Precision resistance values, low voltage coefficient, low capacitive and inductive characteristics in high frequency applications, extremely high stability and economy.

TYPES DC, DCH

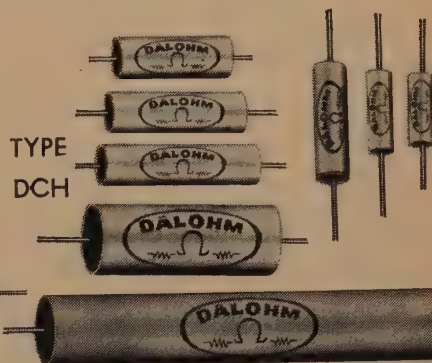
Resistance range from 10 ohms to 50 megohms; tolerance 1% or higher as specified. Type DCH hermetically sealed in non-hydroscopic ceramic envelope. Five wattages— $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, 1 and 2; eight sizes.

Write for Bulletins R-24C, R-27C

TYPE DC



TYPE DCH



TYPE DC-5

For high voltage and/or high resistance applications; powered at 5 watts; high voltage up to 20,000 VDC; resistance range 1 megohm to 200 megohms; tolerance 1%.

Write for Bulletin R-28



POTENTIOMETERS

TYPE A10-W TRIMMER

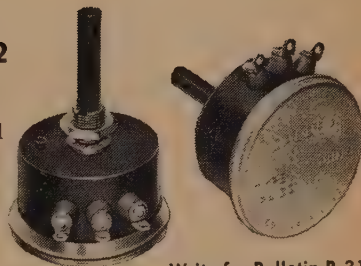
High temperature—humidity proof—ruggedized—wire wound—designed to provide highest performance under ever-increasing MIL SPEC requirements. Powered at .8 watt; resistance range 10 ohms to 100K ohms; tolerance 5% standard.

Write for Bulletin R-32C



TYPE DP-12

Hermetically sealed, moisture proof for critical electronic circuitry, Military Type RA-30 built to surpass JAN-R-19.

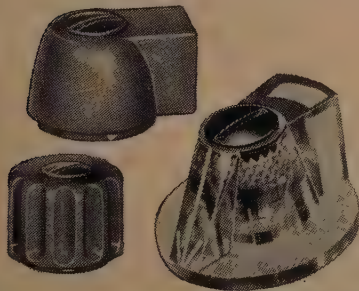


Write for Bulletin R-31



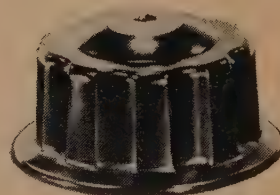
Collet-Fitting EQUIPMENT KNOBS

Precision made Dalohm knobs, incorporating an exclusive collet-fitting design, permit positive locking on the shaft without any of the damaging effects found in other knob securing methods.



TYPE K INDUSTRIAL KNOBS

For hard use at high/low temperatures; precision cast of thermo setting plastic; five sizes — $\frac{5}{8}$ ", 1-1/16", 1 3/4", 2 1/4", 3". Collets interchangeable for shafts $\frac{1}{8}$ " to $\frac{3}{8}$ ". Standard pointers, escutcheons and indicators available.



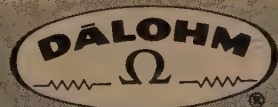
Write for Bulletin K-29

TYPE MS Military Style KNOBS

in accordance with MIL-K-25049

The ultimate in airborne and other military knob applications. Made of tough, durable, fungus-proof thermoplastic; metal parts corrosion resistant. Complete selection of skirts as required by MIL Specs.

Write for Bulletin K-35A



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FREQUENCY STANDARDS

PRECISION FORK UNIT TYPE 50



Size 1" dia. x 3 3/4" H.* Wght., 4 oz.

Frequencies: 240 to 1000 cycles

Accuracies:—

Type 50 ($\pm 0.02\%$ at -65° to 85°C)

Type R50 ($\pm 0.002\%$ at 15° to 35°C)

Double triode and 5 pigtail parts required

Input, Tube heater voltage and B voltage

Output, approx. 5V into 200,000 ohms

*3 1/8" high
400 - 1000 cy.

FREQUENCY STANDARD TYPE 50L



Size 3 3/4" x 4 1/2" x 5 1/2" High
Weight, 2 lbs.

Frequencies: 50, 60, 75 or 100 cycles

Accuracies:—

Type 50L ($\pm 0.02\%$ at -65° to 85°C)

Type R50L ($\pm 0.002\%$ at 15° to 35°C)

Output, 3V into 200,000 ohms

Input, 150 to 300V, B (6V at .6 amps.)

PRECISION FORK UNIT TYPE 2003



Size 1 1/2" dia. x 4 1/2" H.* Wght. 8 oz.

Frequencies: 200 to 4000 cycles

Accuracies:—

Type 2003 ($\pm 0.02\%$ at -65° to 85°C)

Type R2003 ($\pm 0.002\%$ at 15° to 35°C)

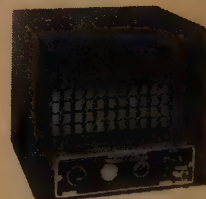
Type W2003 ($\pm 0.005\%$ at -65° to 85°C)

Double triode and 5 pigtail parts required

Input and output same as Type 50, above

*3 1/2" high
400 to 500 cy.
optional

FREQUENCY STANDARD TYPE 2005



Size, 8" x 8" x 7 1/4" High
Weight, 14 lbs.

Frequencies: 50 to 400 cycles
(Specify)

Accuracy: $\pm 0.001\%$ from 20° to 30°C

Output, 10 Watts at 115 Volts

Input, 115V. (50 to 400 cycles)

FREQUENCY STANDARD TYPE 2007T TRANSISTORIZED



Size 1 1/2" dia. x 4 1/2" H.* Wght. 7 ozs.

Frequencies: 240 to 1000 cycles

Accuracies:—Same as 2003, above

Type 2007S—Silicon type

Input, 28V.

Output, Multitap, 75 to 100,000 ohms

*3 1/2" in 2007S, 400 to 800 cycles.

FREQUENCY STANDARD TYPE 2121A



Size
8 3/4" x 19" panel
Weight, 25 lbs.

Output: 115V
60 cycles, 10 Watt

Accuracy:

$\pm 0.001\%$ from 20° to 30°C

Input, 115V (50 to 400 cycles)

FREQUENCY STANDARD TYPE 2001-2



Size 3 3/4" x 4 1/2" x 6" H., Wght. 26 ozs.

Frequencies: 200 to 3000 cycles

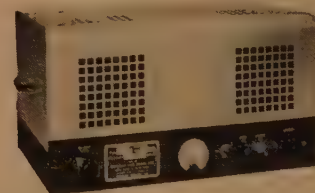
Accuracy: $\pm 0.001\%$ at 20° to 30°C

Output; 5V. at 250,000 ohms

Input: Heater voltage, 6.3 - 12 - 28

B voltage, 100 to 300 V., at 5 to 10 ma.

FREQUENCY STANDARD TYPE 2111C



Size, with cover
10" x 17" x 9" H.

Panel model
10" x 19" x 8 3/4" H.

Weight, 25 lbs.

Frequencies: 50 to 1000 cycles

Accuracy: ($\pm 0.002\%$ at 15° to 35°C)

Output: 115V, 75W. Input: 115V, 50 to 75 cycles.

ACCESSORY UNITS for TYPE 2001-2



L—For low frequencies
multi-vibrator type, 40-200 cy.

D—For low frequencies
counter type, 40-200 cy.

H—For high freqs, up to 20 KC.

M—Power Amplifier, 2W output.

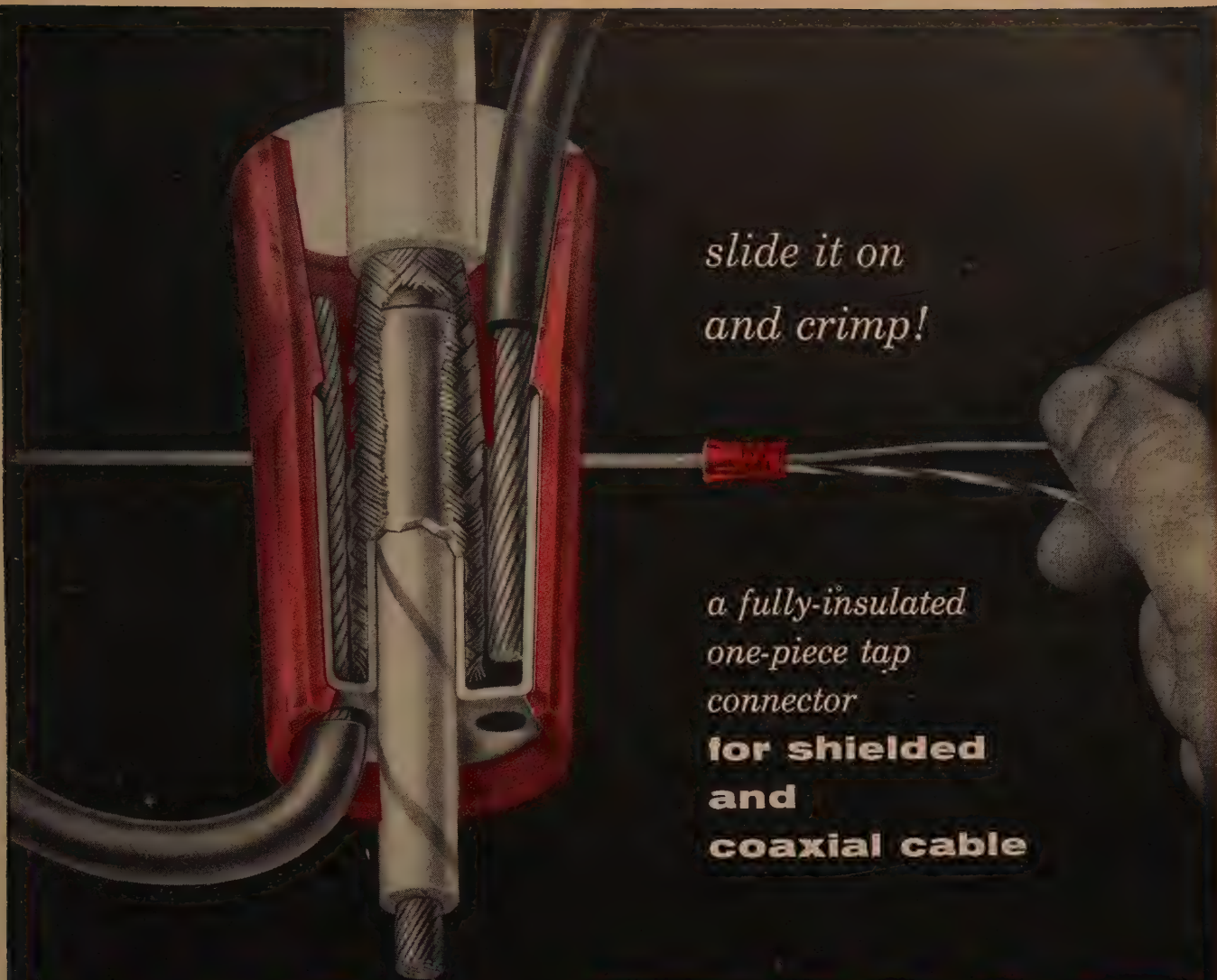
P—Power supply.

This organization makes frequency standards within a range of 30 to 30,000 cycles. They are used extensively by aviation, industry, government departments, armed forces—where maximum accuracy and durability are required.

WHEN REQUESTING INFORMATION
PLEASE SPECIFY TYPE NUMBER

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and crimp!*

*a fully-insulated
one-piece tap
connector
for shielded
and
coaxial cable*

UNI-RING

UNI-RING offers a tremendous saving in installation time over any previous method of tapping or terminating shielded or coaxial cable. As the inner ring slides under the shielded braid, the tap wire is held between the braid and the outer ring. Single or multiple taps, from either the front or back of the connector, can be accommodated . . . A single crimp, using the same basic HYTOOLS used for installing HYRINGS, completes the uniform, secure, and insulated assembly.

The protecting nylon insulation extends beyond both ends of the UNI-RING, eliminating metal-to-metal contact and preventing harmful wire-chafing in tight locations. The UNI-RING is color-coded to indicate conductor sizes.

UNI-RING's one-piece design insures electrical integrity, prevents heating, and eliminates noises caused by isolated metal parts.

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TRANSFORMER PROBLEMS

problem

Design a charging reactor with an inductance of 4.85 henrys ($\pm 7\%$) at 150 ma, DC, and an inductance linearity of 20%. It should operate at 8000 volts, DC, be tested at 14,000 RMS volts, and continuously useable in the frequency range up to 2000 cps. It should have a maximum temperature rise of 125°C in a standard ambient, also a maximum effective capacitance of only 51 micromicrofarads when measured in the frequency range between 20 and 25 megacycles. Other prime factors are minimum weight and dimension. Construction to be in strict accordance with the applicable requirements of MIL-T-27.

solution

Inductance: 4.85 henrys $\pm 5\%$ @ 150 ma, DC
Linearity: 10% • Operating Voltage: DC=8000
Test Voltage RMS: 16,000 • Useable at F up to:
2000 cps • Maximum Temp. Rise: 100° C • Ambient Temperature: 25°C • Max. Effective Cap.: 51 micromicrofarads (measured at 20-25 megacycles) • Weight: 2-3/4 lbs. • Dimensions, nominal: H-3-1/2" x 3-3/8" terminal, W-2-7/8" L-3-13/16"

problem

Design a miniaturized 400 cycle filament transformer for airborne operation. Transformer to operate in an ambient temperature ranging from -55°C to +100°C. The maximum allowable temperature rise to be 60° over ambient. Dimensions cannot exceed 2-7/8" high, by 2-7/16" wide, by 2-1/2" long; nor can the weight exceed 2 pounds. The primary source to be 115V, with primary insulation for 500V RMS hipot. An electrostatic shield is required between the primary and secondary. The secondary is required to deliver 10 amperes at 5V (C.T.) $\pm 3\%$, have a total maximum capacitance of 60 micromicrofarads to other windings, shield and core, and be able to stand a high potential test of 21,000V, RMS, @ 60 cycles. Construction to be in accordance with applicable parts of MIL-T-27, grade 2, Class B. The above are given as maximum dimension and minimum performance requirements, greatest possible improvement in size, weight and performance requested.

solution

Filament transformer, Fosterite Impregnated • Primary: 115V, 380 to 1600 cps. Hipot at 1000V, RMS, 60 cps • Electrostatic shield grounded to core. • Secondary: 5V, C.T. $\pm 1/4\%$ @ 10 amp. Hipot at 25,000V, RMS, 60 cps. for one minute. Distributed capacitance to other winding, shield and core: 50 micromicrofarads. • Temperature Rise: 30°C • Ambient temperature range: -55°C to +100°C • Weight: 12 ounces • Dimensions: H-2-1/4" x 3-3/8" terminal, W-2-3/16", L-2-1/2"

problem

Design a miniaturized 400 cycle power transformer for airborne operation, with a three phase primary and three secondaries: three phase, two phase and single phase. Transformer to operate in an ambient temperature ranging from -55°C to +85°C. The maximum allowable temperature rise to be 40°C over ambient. Transformer to operate at altitudes up to 50,000 feet. Dimensions cannot exceed 5" high, by 2-1/4" wide, by 2-1/2" long, nor can the weight exceed 2-1/2 pounds. The primary source to be 115V, 400 cps, three phase. The three secondary loads to be (a) 30V, three phase, at 1.8A with .5 lagging power factor, (b) 30V, single phase, at 4A with .7 lagging power factor, and (c) 115V single phase, in quadrature with (b) $\pm 5^\circ$, at .47A with .7 lagging power factor. All secondary windings to be ended in four terminals. Construction to be in accordance with applicable parts of MIL-T-27, Grade 1, Class A. The above are given as maximum dimensions and minimum performance requirements, greatest possible improvement in size, weight and performance requested.

solution

Power transformer, three phase, 400 cps to one phase, two phase, and three phase. Construction: Grade 1, Class A, to MIL-T-27 • Ambient Temperature range: -55°C to +85°C • Temperature Rise: 35°C • Primary: Three terminal, three phase, 115V, 380-400 cps, per phase • Secondaries: Total of four terminals (a) 30V, three phase at 1.8A and .5 lagging power factor. Continuous duty. (b) 30V, single phase at 4A and .7 lagging power factor. Continuous duty. (c) 115V, single phase, at .47A, .7 lagging power factor and in quadrature with (b) within $\pm 5^\circ$. • Weight: Two pounds • Dimensions: H-4-1/32" x 1-1/2" seven terminal header, W-2-1/32" L-2-9/32"

problem

Design a miniature audio input transformer for airborne operation. Transformer to operate in an ambient temperature of +85°C, and to conform to the applicable parts of MIL-E-5400 and MIL-T-27. Duty cycle to be continuous with a minimum life of 1000 hours. Transformer to couple a 300 ohm source to a tube grid. Step-up turns ratio to be 1:17 minimum, with the maximum possible desired. Frequency response to be flat within 0.75 db from 20 cps to 7,000 cps, and flat within 1.2 db from 15 cps to 10,000 cps. Maximum signal level to be 500 mv @ 20 cps in 300 ohm primary. Electrostatic shield required between primary and secondary. Electromagnetic shielding to be 40 db minimum. Size to be kept minimum but must not exceed 1-1/8" x 7/8" x 1-3/8" high.

solution

Audio Transformer, low level input, miniaturized. • Construction: Grade 1, Class A, MIL-T-27 • Duty Cycle: Continuous • Life: Greater than 1,000 hours. • Ambient temperature: +85°C max. • Primary: Three terminal, center-tapped winding, 300 ohms nominal impedance. • Secondary: Two terminal winding, 125,000 ohms nominal impedance. Turns ratio: 1:20-1/2 • Electrostatic Shield: Between primary and secondary. Electromagnetic Shield: 45db • Frequency response: 20 cps-7,500 cps, flat within 0.5 db and 10 cps-10,000 cps, flat within 1.0 db with 125,000 ohm load. • Maximum input voltage: 500 mv at 20 cps • Dimensions: 1" x 11/16" x 1" high + 1/8" terminal

problem

Design an hermetically sealed, miniaturized, power supply to provide 6600V, DC, at 100 microamperes load, when connected to a source of 115V, 400 cps. Power supply to operate in an ambient temperature range between -55°C and +85°C. Minimum life to be 5000 hours at full load. Full load input current must not exceed 0.05A. Output voltage regulation, no load to full load, to be 400 volts DC maximum. Maximum ripple voltage at full load to be 250 volts, peak to peak. Casing to be in accordance with the applicable requirements of MIL-T-27. Power supply to have low external magnetic field. Preferred maximum dimensions to be 3-3/4" x 3-3/4" x 1-3/4" thick.

problem

Design an hermetically sealed 400 cps output transformer for use in a servo amplifier with a high degree of feedback (Mu-B-100). Frequency response to be linear within 3 db from 200 cps to 170,000 cps, with no dips or peaks. Primary impedance to be 6,000 ohms, center-tapped, with a maximum DC resistance of 80 ohms. Primary OCL to be 4 henrys minimum when measured at 30V, 400 cps, and with 7.5 ma of DC flowing through the total winding. Secondary impedance to be 500 ohms, center-tapped, with a maximum DC resistance of 6 ohms. Secondary rated output to be 140V @ 400 cps into a 500 ohm load. Transformer efficiency to be 95% minimum. Ambient temperature range to be from -55°C to +105°C. Maximum altitude to be 70,000 feet. Casing to be in accordance with the applicable requirements of MIL-T-27, with preferred dimension limits to be 2-1/2" x 2-3/4" x 2-3/16".

solution

Output Transformer: 400 cps, high level, hermetically sealed. • Construction: Grade 1, Class B, MIL-T-27. • Maximum Altitude: 70,000 feet, 10,000 hours. • Ambient Temperature: -55°C to +105°C. • Primary: Three terminal, center-tapped winding, 6000 ohms nominal impedance. • Primary Resistance: 45 ohms. • Primary OCL: 5 henrys, measured at 30V, 400 cps, with a 7.5 ma, DC, through winding. • Secondary: Three terminal, center-tapped winding, 500 ohms nominal impedance. • Secondary Resistance: 5 ohms. • Rated Operating Level: 140V, 400 cps across 500 ohm secondary load. • Efficiency: 95%. • Frequency Response: 200 cps-300,000 cps, flat within 1.0 db, and 200 cps-550,000 cps, flat within 3.0 db. Smooth response, no discontinuities. • Dimensions: 2-1/2" x 2-3/4" x 2-3/16" high + 5/8" terminals.

solution

Power supply: Hermetically sealed, AC to DC. Construction: Oil filled metal casing in accordance with applicable requirements of MIL-T-27. • Life: Greater than 5000 hours. • Ambient temperature: +85°C maximum, -55°C minimum. • Input: Two terminals, 115V, 380 cps to 420 cps. • Output: One terminal and case, 6600V DC at 100 microamperes. • Regulation: 350V, no load to full load. • Ripple voltage: 200V peak to peak. • External field: Nil. • Dimensions: 1-17/32" x 3-17/32" x 3-19/32" + 1-1/16" over terminals.

Do these problems look like those you face? They are typical of the Peerless Transformers which have been developed to meet unique and difficult specifications. The ability of the Peerless engineering staff to solve these design problems quickest and best accounts for the preference which engineers throughout the country have for Peerless' products. If you have unusual transformer requirements, consult Peerless.

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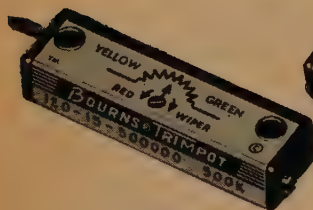
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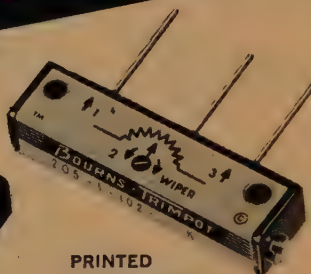
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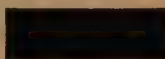
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COPR. 51

TRIMPOT • LINEAR MOTION POTENTIOMETERS • PRESSURE TRANSDUCERS AND ACCELEROMETERS

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please mention Electronics Buyers' Guide.

electronics



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1. RATE GYROS



MODEL	LINEARITY	THRESHOLD	FULL SCALE RANGE	NATURAL FREQUENCY	VIBRATION	SHOCK	OPERATING TEMPERATURE RANGE	WARM-UP TIME	SIZE	WEIGHT
K	0.25%	.01°/sec.	5°/sec. to 600°/sec.	up to 125 cps	15G to 2000 cps	50G	-67°F to 185°F	30 min.	3" Dia. 5 3/4" long	3 3/4 lb.
JR	0.25%	.01°/sec.	10°/sec. to 1000°/sec.	up to 125 cps	15G to 2000 cps	100G	-67°F to 185°F	—	2 1/8" Dia. 4 1/8" long	1.95 lb.
GNAT	<1%	.01°/sec.	10°/sec. to 570°/sec.	up to 125 cps	15G to 2000 cps	60G	-67°F to 185°F	—	1" Dia. 2.2" long	4 oz.

All Gyros have synchronous, hysteresis-type motors, variable reluctance pickoffs, and controlled viscous damping.

2. LINEAR ACCELEROMETERS



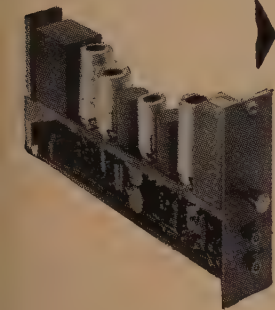
sense positive or negative accelerations, or both in either the vertical or horizontal plane. Available in variation of ranges from ± 0.5 g to more than ± 50 g's. Hermetically sealed. Meet specifications MIL-E-5272A. Write for Bulletin LA.

MODEL	FULL RANGE	THRESHOLD	NATURAL FREQUENCY	DAMPING RATIO	LINEARITY	POTENTIOMETER
LA-107	± 5 G	.17G max.	9 cps min.	.6 @ 80°F.	2%	2K min.
LA-108	± 5 G	.1G max.	9 cps min.	.6 @ 80°F.	1%	12K $\pm 15\%$
LA-111	0 to +20G	.2G max.	14 cps min.	.8 @ 80°F.	2%	8K $\pm 10\%$
LA-112	0 to +4G	.05G max.	5 cps min.	.6 @ 80°F.	2%	1K $\pm 10\%$
*LA-301	-3 to +7G	.17G max.	9 cps min.	.7 to 1.4 @ -65° to +160°F.	2%	2K min.
**LAS-301	+5G	—	7 cps	.6 to 1.5 @ -65° to +160°F.	—	Contacts open @ $\pm 5 \pm 1$ G

*with 30 Watt Heater 28 Volts D-C

**with 100 Watt Heater 115 Volts A-C

3. LOW LEVEL D-C AMPLIFIERS



MODEL	INPUT RANGE mv.	INPUT IMPEDANCE ohms	FREQUENCY RESPONSE cps	RISE TIME (99.9%) milliseconds.	GAIN	LINEARITY %	ZERO DRIFT max. %	NOISE LEVEL max. %	OVER RANGE volts	OUTPUT
2HLA-3	1-30-10 30-100	1 Meg/Volt	0-20	—	10,000	<1	1	0.5	1.5	10 v. into 1500 Ω
2HLA-4*	0-100 μ v to 100 mv	100K	0-60	—	100 to 100,000	0.1 to 10	1	0.5	1.5	10 v. into 1500 Ω
2HMA-2	0-5	2.2K	0-400	<5	1,000	0.5	0.2	3 p-p	1.5	0-5 volts
2HMH-0a	± 10	1.7K	—	<50	5,000	± 1	± 3	.25 p-p	1.5	± 50 volts
2HMH-1a	± 5	1.7K	0-5	—	100	± 1	± 3	.1 p-p	1.5	± 5 volts
2HMH-2a	± 5	1.7K	0-5	<250	100	± 1	± 3	.1 p-p	1.5	± 5 volts
2HMH-3a	± 10	1.7K	—	<100	100	± 0.5	± 3	.2 p-p	1.5	± 1.0 volts
2HMH-4a	± 50	1.7K	—	<20	1,000	$\pm 0.5-1$	± 1	.1 p-p	1.5	± 50 volts
2HMH-5a	± 5	1.7K	0-10	<250	200	± 1	1	.1 p-p	1.5	± 1.0 volts
2HMH-6a	± 20	1.7K	0-5	—	250	± 1	± 1	.1 p-p	1.5	0-5 volts

*Plug-in Unit

4. 400-CYCLE SERVO MOTORS

1. RATE GYROS combine extreme ruggedness with high precision in applications where accuracy and superior dynamic response are essential . . . proven components in many missile homing, fire control and autopilot systems . . . Write for Gyro Bulletin.



HONEYWELL TYPE NO.	GOVERNMENT DESIGNATION	FRAME SIZE	STALL TORQUE MINIMUM	NO LOAD SPEED	RATED VOLTAGE		
					FIXED PHASE	CONTROL PHASE (SERIES)	CONTROL PHASE (PARALLEL)
SM-070	MK 7 MOD 0	15	1.45 oz. in.	4800 rpm	115	115	57.5
SM-071	MK 7 MOD 1	15	1.45 oz. in.	4800 rpm	115	115	57.5
SM-072	MK 7 MOD 2	15	1.45 oz. in.	4800 rpm	115	230	115
SM-080	MK 8 MOD 0	18	2.35 oz. in.	4800 rpm	115	115	57.5
SM-081	MK 8 MOD 1	18	2.35 oz. in.	4800 rpm	115	115	57.5
SM-082	MK 8 MOD 2	18	2.35 oz. in.	4800 rpm	115	300	150
SM-142	MK 14 MOD 2	11	0.60 oz. in.	6200 rpm	115	115	57.5
SM-143	MK 14 MOD 3	11	0.60 oz. in.	6200 rpm	115	180	90

3. LOW LEVEL D-C AMPLIFIERS excel in linearity and stability in proportionally amplifying low level d-c voltages for measurement and control applications. Input is completely isolated from output. Write for Amplifier Bulletin.

4. 400-CYCLE SERVO MOTORS provide the fast dynamic response required in high performance servo systems . . . extremely high torque-to-inertia ratio . . . MIL-S-17087 . . . available with internally or externally threaded gear pinion shafts . . . can be equipped with gear heads to meet customer requirements. Write for Servo Motor Bulletin.

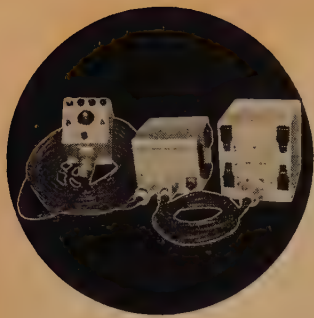
5. SYNCHROS (115 volt 400 or 60 cycle)



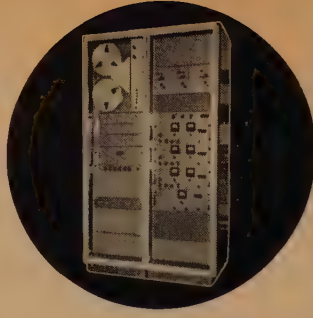
5. SYNCHROS (115 volt, 400 or 60 cycle) are proven components in numerous military servo systems. Over-all performance characteristics are guaranteed to equal or surpass requirements of MIL-S-16892, FXS-1006, MIL-S-12472 and MIL-S-17245 . . . available with either splined or keyed shafts. Write for Synchro Bulletin.

WRITE FOR BULLETINS as indicated above to Minneapolis-Honeywell, Boston Division, Dept. D7, 1400 Soldiers Field Road, Boston 35, Massachusetts

GOVERNMENT DESIGNATION	FUNCTION	FREQUENCY	MAX. ELECTRICAL ERROR	MAX. DYNAMIC RECEIVER ERROR
SIZE 15				
15CDX4a	DIFFERENTIAL TRANSMITTER	400	10'	
15CT4a	TRANSFORMER	400	10'	
15CX4a	TRANSMITTER	400	12'	
15TDX4a	DIFFERENTIAL TRANSMITTER	400	10'	
15TR4a	RECEIVER	400	12'	60'
SIZE 23				
23CDX4a	DIFFERENTIAL TRANSMITTER	400	8'	
23CDX6a	DIFFERENTIAL TRANSMITTER	60	8'	
23CT4a	TRANSFORMER	400	6'	
23CX4a	TRANSMITTER	400	8'	
23CT6a	TRANSFORMER	60	6'	
23CX6a	TRANSMITTER	60	8'	
23TDR4a	DIFFERENTIAL RECEIVER	400	8'	60'
23TDR6a	DIFFERENTIAL RECEIVER	60	8'	60'
23TDX4a	DIFFERENTIAL TRANSMITTER	400	8'	
23TDX6a	DIFFERENTIAL TRANSMITTER	60	8'	
23TR4a	RECEIVER	400	8'	60'
23TR6a	RECEIVER	60	8'	60'
23TX4a	TRANSMITTER	400	8'	
23TX6a	TRANSMITTER	60	8'	



airborne
recording system



universal
tape system



automatic
wave analyzer



multi-track
record/reproduce heads

Record, Reduce, and Analyze Data on Magnetic Tape

ON-THE-SCENE RECORDING

Getting the data on tape is generally just as difficult as the available space is limited. But standard recorders available from the Davies Laboratories Division can meet even the severe restrictions of missile flight. Recorders for airborne, mobile, and other uses characterized by limited space and severe environmental conditions range from a complete six track system in a seven inch cube illustrated, to a 10½" reel recorder with 14 or more tracks. Electronic Housings contain complete power facilities, while interchangeable plug-in cards provide recording circuitry for direct, FM, PWM, or digital pulse techniques on each track. Operating on 28 volts DC and/or 115 volts, 400 cps, recorders provide tape speeds from ½ to 60 ips. All include provision for electronic wow and flutter compensation perfected by the Davies Laboratories Division. *Standard portable recording equipment is described in Bulletin 2602.*

UNIVERSAL SYSTEMS RECORD/REPRODUCE IN THE LABORATORY

Universal Magnetic Tape Systems combine the ready to use trouble-free qualities of a "package" with the precision, accuracy, and flexibility of the far more expensive custom designs. Systems available provide up to thirty tracks of data capacity, interchangeable plug-in direct, FM, or PWM recording electronics for each track, electronic compensation for wow and flutter, plus numerous other features proved through years of service in jets, missiles, and on the ground. Features never before available in a "package" system include a choice of six tape speeds at the flip of a switch, automatically switched components to match tape speed, and precise time coincidence of data across the tape. Custom systems are readily available for those few applications for which a Universal System is not suited. *Write for Bulletin 2701.*

AUTOMATIC WAVE ANALYZERS SPEED DATA REDUCTION... IMPROVE STATISTICAL RELIABILITY

Feed data from magnetic tape or other steady state sources into a Davies Laboratories Division Automatic

Wave Analyzer and a complete Fourier series is automatically plotted and printed in permanent record form as either *amplitude versus frequency* or *power versus frequency*. Model 9020A analyzes frequencies from 3 cps to 2 kc, and Model 9050A has a frequency range of 3 cps to 10 kc. Both have a "quick look" facility for a fast picture of major frequency components, and both are characterized by high amplitude accuracy, wide voltage range, high resolution, and adjustable bandwidths. Multichannel inputs permit simultaneous analysis of up to six data channels. *Write for Bulletin 9001.*

MULTI-TRACK RECORD/REPRODUCE HEADS

Head styles are available from the Davies Laboratories Division to satisfy all of the major considerations of data recording, including precise data coincidence among tracks across the tape, maximum number of tracks per inch of tape width, high speed stop/start operation, special pulse system requirements, and efficiency in low speed recording. Inline head stacks for data coincidence, interleaved head stacks for high track density, and "pointed" head stacks for high speed stop/start pulse systems are constructed for maximum accuracy under the most adverse environmental conditions. *Write for Bulletin 3300.*

* * *

Space does not permit coverage of more than a few kinds of Davies Laboratories Division equipment for data recording, reduction, and analysis. Chances are, whatever your tape requirements, Davies Division is experienced in satisfying them. Tell us what they are, and we'll be happy to send you whatever literature is available, or have a representative at your door at your convenience. If you'd like a general rundown of magnetic tape data recording, and the techniques available for getting your data accurately on tape, write for Bulletin 1001, "The Role Of Magnetic Tape In Data Recording". Minneapolis-Honeywell Regulator Company, Davies Laboratories Division, 10721 Hanna Street, Beltsville, Maryland. WEBster 5-2700.

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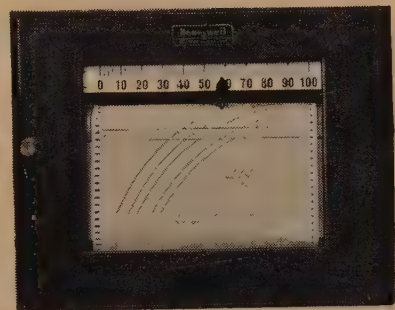
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C Miniature Wire and Cable — "Surco" miniature wire and cables are made in conductor sizes down to No. 32 AWG in stranded and No. 30 AWG in solid. Close control in manufacturing permits small finished diameters on both single and multi-conductor cable. Available in standard colors with and without nylon jackets or shielding in the various vinyl or polyethylene compounds.

D "Surflene" Insulated Hook-up Wire and Tubing — "Surflene" (Kel-F) for use at temperatures not exceeding 135°C is available in 15 solid colors and wall thicknesses down to 0.008".

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F New Improved Aircraft Wire — Surprenant new lightweight, smaller diameter MD wire (Vinyl, glass braid, nylon) and the standard Surprenant sandwich construction (Vinyl, glass braid, nylon) give excellent overload safety, high and low temperature performance, good electrical properties and have a nylon jacket giving greater resistance to abrasion, fungus, moisture, and hydraulic and other oils (nylon braided jacket on size 10 AWG and larger for greater flexibility) and are made to conform to MIL-W-5086. "Surprenant" also offers nylon jacketed polyvinyl-chloride construction made to conform to MIL-W-5086, MIL-C-

7078A and MIL-W-7072A (ASG). High temperature wire made to MIL-W-8777A and MIL-W-7139A.

G "Spiralon" — "Surco-Spiralon" color coding is available on all vinyl, nylon, Teflon, and Kel-F insulated wires, with or without nylon jackets. One, two or three color stripes are available in the Nema colors providing almost unlimited color identifications. Solid color insulation is also available in the 10 standard Nema colors.

H "Surco" A-10 for (105°C) Hook-up Wire — A-10 is an unusually high grade vinyl insulating compound developed in our own laboratories for a better hook-up wire. It has excellent resistance to deformation, soldering, high temperature, low temperature and aging; high electrical properties; Underwriters' Lab. approved for continuous operation to 105°C without fibrous covering. A-10 insulated wire made to conform to MIL-W-16878B, Types B, C, and D, with or without nylon jackets or synthetic braids.

I "Surco" Tubing — "Surco" vinyl, nylon, polyethylene, silicone rubber, Kel-F and Teflon tubing available in a wide variety of sizes, temperature ranges, electrical and physical characteristics.

J MIL-W-5274A Radar & Electronic Hook-up Wire — Made to conform to Air Forces Spec., this wire offers excellent low temperature performance. Nylon jacketed, it has high abrasion resistance and superior surface resistivity even under adverse humidity conditions, making it very adaptable for high impedance circuits.

K Silicone Rubber Wire and Cable — Thin wall silicone wire for 600 and 1000 volt service up to 400°F continuously and higher with short life ratings. Remains flexible at -100°F. Braided and jacketed constructions available for increased mechanical and abrasive characteristics.

L UL and CSA Appliance Wire — Approved for 80°C, 90°C and 105°C in a range of sizes, wall thicknesses and voltage ratings as required, and solid or stranded conductors with or without nylon or braided jackets. Color coded as required.

Extruded THIN WALL Teflon
INSULATED (210°C)
HOOK-UP WIRE

Continuously operable over the range from -90°C to 210°C without appreciable deterioration, extruded "Teflon" (polytetrafluoroethylene) is now available in walls as thin as 0.010" (type WTE) and 0.015" (type RTE). Teflon combines non-flammability, chemical and solvent resistance, high volume and surface

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- RF Shielding
- Wave Guide Gaskets
- Heat Dissipating
Tube Shields



Electronic Weatherstrip

Knitted, metallic wire structure combines maximum *conductivity* for efficient performance with inherent *resiliency* that assures continuous line contact between imperfect mating surfaces. Interlocked loops, of continuous wire strands, assures maximum *cohesion*. Available in continuous lengths in more than 500 shapes and sizes to meet all installation requirements.

Type		Size	Monel	Aluminum	Brass
□	Rectangular	1/8" x 1/8"	10-199	10-204	10-230
	Rectangular	1/8" x 5/32"	10-194	10-182	10-338
○	Round	1/8" dia.	10-006	10-035	10-118
	Round	3/16" dia.	10-020	10-029	10-253
	Round	1/4" dia.	10-024	10-032	10-337
┐	Single Fin	1/8" dia. 3/8" o/a	10-008	10-095	10-343
	Single Fin	1/8" dia. 5/8" o/a	10-061	10-339	10-340
└	Single Fin	3/16" dia. 5/8" o/a	10-058	10-066	10-288
	Single Fin	1/4" dia. 5/8" o/a	10-109	10-341	10-342

Standard strips shown above available from stock without minimum charge.
Other types available on order.



Choke Flange Gaskets

The controlled resiliency and compressibility of METEX *Knitted Wire* Gaskets for standard Waveguide Choke-Flanges insure complete metallic contact, flange to flange. Assures RF-tight joint when distortion makes choke inefficient. Supplements choke to prevent RF leakage at high power levels. Eliminates leakage at other than choke frequencies.

			REFERENCE WAVEGUIDE		
ASESA FLANGE NO.	METEX PART NO.	GASKET MATERIAL	ASESA NO.	NOMINAL O.D.	MATERIAL
UG-40/U	MT 17/4	Monel	RG-52/U	1 x 1/2	Brass
UG-40A/U	MT 266-2	Monel	RG-52/U	1 x 1/2	Brass
UG-42/U	MT 74-2	Monel	RG-51/U	1 1/4 x 5/8	Brass
UG-52A/U	MT 307-1	Monel	RG-51/U	1 1/4 x 5/8	Brass
UG-54A/U	MT 406-1	Monel	RG-48/U	3 x 1 1/2	Brass
UG-136/U	MT 17-15	Aluminum	RG-67/U	1 x 1/2	Aluminum
UG-136A/U	MT 266-4	Aluminum	RG-67/U	1 x 1/2	Aluminum
UG-137A/U	MT 307-3	Aluminum	RG-68/U	1 1/4 x 5/8	Aluminum
UG-148B/U	MT 358-1	Monel	RG-49/U	2 x 1	Brass
UG-343A/U	MT 426-1	Monel	RG-50/U	1 1/2 x 3/4	Brass
UG-406A/U	MT 358-2	Aluminum	RG-95/U	2 x 1	Aluminum
UG-440A/U	MT 426-2	Aluminum	RG-106/U	1 1/2 x 3/4	Aluminum
			RG-91/U	.702 x .391	Brass
UG-541A/U	MT 157-2	Monel	RG-107/U	.702 x .391	Silver
UG-585/U	MT 406-2	Aluminum	RG-75/U	3 x 1 1/2	Aluminum

Standard RF gaskets shown above available from stock without minimum charge.
Other RF gaskets available on order.



Heat Dissipating Tube Shields

METEX Resilient Cooling Sleeves for subminiature tubes combine high heat conducting ability with inherent vibration dampening and shock absorbing properties. Provides an efficient, practical and economical method of conducting heat away from the tube envelope, directly to a heat sink. Aluminum alloy wire assures maximum thermal conductivity with minimum weight. Thermal peaks and valleys are leveled out assuring consistency of thermal performance among tubes.

METEX Part No.	Tube Envelope	HEIGHT
MT-204E-1	T3-1; T3-6; T3-7	1"
MT-204E-2	T3-2; T3-5; T3-8	1 5/8"
MT-204E-3	T3-3	1 1/2"
MT-204E-5	T3-4	1 1/4"

Sizes shown available from stock. Other sizes available on special-order.

METEX Engineers will be glad to work with you on any problems involving RF Shielding or Heat Dissipation in electronics or related equipment. No obligation, naturally!

ELECTRONICS DIVISION

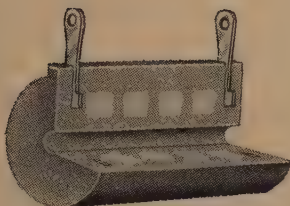
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ROSELLE • NEW JERSEY

Our principal product—RELIABILITY



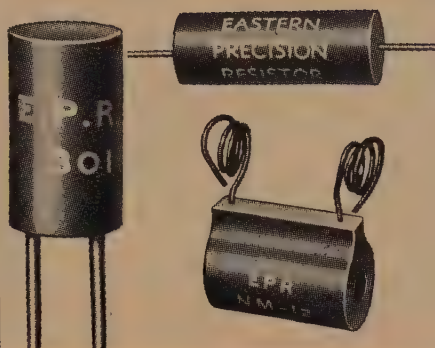
Eastern Precision Resistor Corp. is the only resistor manufacturer which compounds and produces its own plastics, extrudes its own rods and machine its own bobbins. The rigid quality control exercised

over these operations as well as over resistor production, insures the reliability, stability and tolerance of all EPR products.



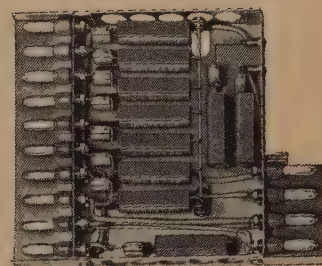
N-CAPS

Designed to surpass the requirements of MIL-R-93A and MIL-R-9444 specifications, EPR "N-Caps" encapsulated lug resistors feature optimum reliability over a wide range of adverse environmental conditions. Available in all standard military sizes, plus hundreds of commercial, subminiature and special sizes and shapes.



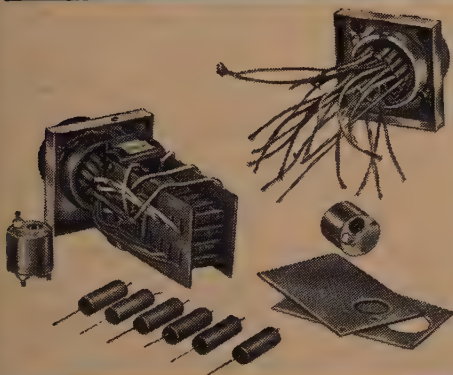
ENCAPSULATED SUBMINIATURE PRECISION WIRE-WOUND RESISTORS

Series NM (radial lead) and Series NS (axial lead) resistors are wound on plastic bobbins and encapsulated to meet the requirements of MIL-R-93A specifications, characteristic "A". Available in both military and industrial subminiature sizes and ratings.



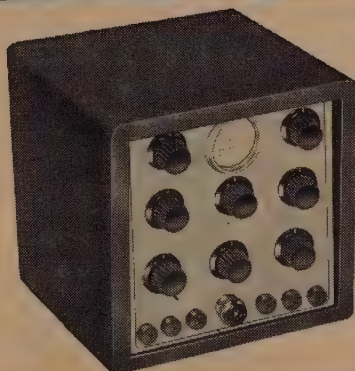
AC RESISTANCE NETWORKS

Excellent matched characteristics over wide temperature and frequency ranges, combined with very low distributed capacitance are the outstanding features of the Type SS5 Matched Precision Resistors shown above. The distributed capacitance of these wire wound units is held to values as low as 0.5mmfd to 1mmfd on a 1-megohm resistor. Individual resistors are accurate within $\pm 0.05\%$, and are available in resistance values from 25 ohms to 2 megohms in $\frac{1}{4}w$ to 1w ratings. A typical 1-megohm unit is $1" \times \frac{3}{8}"$ diam.



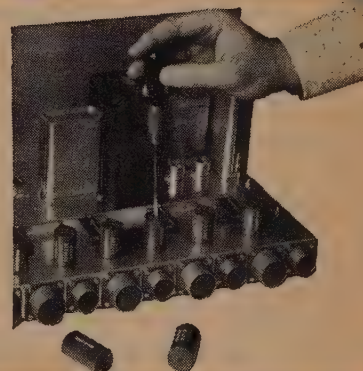
COMPLETE PACKAGING

All Series of EPR resistors can be supplied in modular AC and/or DC matched networks; encapsulated, varnished or wax-impregnated to meet your requirements for termination and mounting.



MINI-SCOPES

These compact, miniaturized oscilloscopes are ideal for general servicing applications at low RF. Automatically-focussed, flat-face 1-inch CRT provides full-scope usable trace with minimum pattern distortion. Frequency Response: DC-150 KC, ± 3 db, usable to 200 KC; Sensitivity: 0.5 volts/in. horizontal, 0.5v—1mv/in. vertical; Sweep Frequency: 0.5 cps-50KC.



COMP-U-TRIM (MODEL 113)

The first, truly-adjustable precision wire-wound resistor. Combines all the desirable features of a bobbin-wound encapsulated resistor and a trimming potentiometer. Values from 100 ohms to 1.0 megohms are available with matched tolerances of better than $\pm 0.005\%$. Particularly suited to computer circuitry, voltage dividers and networks, and other applications where extreme resistance matches must be obtained.

Write TODAY for your "Handbook of Precision Wire Wound Resistors", FREE.

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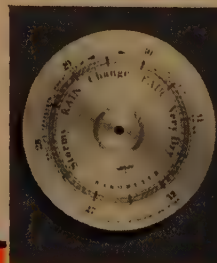
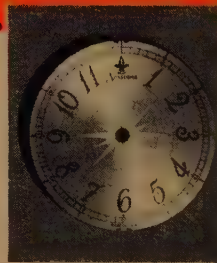
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VACUUM TUBE VOLTMETER

Type LV-10 \$250*

With excellent stability and versatility, this new RCA Vacuum Tube Voltmeter is ideal for use wherever highly precise measurements are essential. Combines in one instrument an AC voltmeter covering a range from audio to UHF frequencies, a DC voltmeter with 100 megohms input resistance, and an ohmmeter capable of measuring resistance from zero to 1000 megohms.

SPECIFICATIONS

DC VOLTS:

7 ranges: 1, 3, 10, 30, 100, 300, 1000. Accuracy: $\pm 3\%$ full scale deflection. Input resistance: 100 megohms $\pm 2\%$ on all ranges.

AC VOLTS:

6 ranges: 1, 3, 10, 30, 100, 300. Sine Wave Accuracy: $\pm 3\%$ full scale deflection. Input impedance: Less than $2 \mu\text{f}$ in parallel with 15 megohms.

Frequency Response:

± 1.0 db, 18 cps to 700 MC. Relative Measurements: possible to 1000 MC.

RESISTANCE:

0 to 1000 megohms in 7 ranges. Accuracy $\pm 5\%$ between divisions 10 and 100 on scale. DB Range: -10 to $+52$ dbm in 6 ranges. Zero dbm ≤ 1 mw in 600 ohms.

DC NULL VOLTMETER

Type LV-14 \$345*

Five important features characterize this Null Voltmeter, as follows: (1) Flexible input: positive, negative or neither side grounded. (2) Calibrated voltage output for external recorder amplifier, sensitive laboratory galvanometer. (3) Simplicity of operation. (4) Infinite impedance at null. (5) Long-life mercury battery. Rack Model LV-14R available at \$360.00.*

SPECIFICATIONS

VOLTAGE RANGES:

0-10, 0-100, 100-200, 200-300, 300-400, 400-500, 500-600 volts DC. Positive, negative, or neither side grounded.

ABSOLUTE ACCURACY:

$0.1\% \pm 10$ millivolts between 0 and 10 volts. ± 100 millivolts between 10 and 600 volts.

RESOLUTION:

At least 5 millivolts between 0 and 10 volts. 50 millivolts between 10 and 600 volts.

INPUT IMPEDANCE:

Infinite at null. Greater than 2.5 megohms per volt at $\frac{1}{4}$ division off null.

POWER REQUIRED:

100-135 volts, 50-60 cycles, 24 watts.

MULTIMETER

Type LM-1 \$70*

Widely used in all phases of industry for measurements of AC and DC voltages and DC current, this new Multimeter provides highest accuracy with modern overload protection. High sensitivity: 20,000 ohms per volt, AC and DC. One selector switch.

SPECIFICATIONS

SENSITIVITY:

20,000 ohms per volt for both AC and DC.

AC VOLTS:

Seven ranges: 3, 10, 30, 100, 300, 1000, 5000V. Accuracy: $\pm 2.5\%$ FSD, 20 to 2000 cps; $\pm 4\%$ for the 5000V range.

RESISTANCE MEASUREMENT:

From 0 to 20 megohms in 3 ranges.

DC VOLTS:

Seven ranges: 3, 10, 30, 100, 300, 1000, 5000V.

Accuracy:

$\pm 1.5\%$ FSD, $\pm 3\%$ for the 5000V range.

DC CURRENT RANGES:

50 μa , 1 ma, 10 ma, 100 ma, 1 A, 10 A. 1.5% FSD accuracy.

For complete information on the above and other instruments in the RCA line, write to RCA, Dept. U-46, Building 15-1, Camden, N.J.



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TRANSFORMERS FOR MILITARY & INDUSTRIAL APPLICATIONS

APPROVED FACILITIES FOR CERTIFYING COMPLIANCE TO MIL-T-27A
Manufacturers of Transformers since 1930

SPECIALLY TREATED TRANSFORMERS

For those innumerable transformer applications in electronic equipment where size, weight and resistance to various atmospheric and temperature conditions are the determining factors, ITC can encapsulate or mold to meet practically any specified condition. This can be accomplished without any deviation in transformer performance

due to special ITC techniques and materials. Special ITC test equipment can simulate temperature, humidity and atmospheric conditions thereby permitting transformer testing under identical operating conditions. ITC specially treated transformers have been "use-proven" in the field under rigid MIL-T-27A specifications.



PULSE TRANSFORMERS

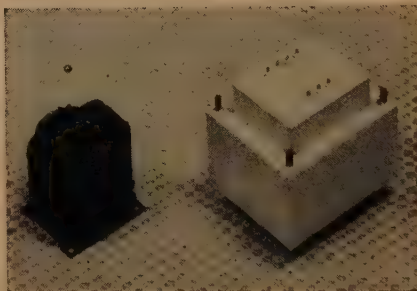
ITC's design file includes pulse transformers varying in size from the subminiature molded types used for blocking oscillator and low power matching purposes to high power pulse output transformers feeding magnetron loads. ITC engineers have produced a great variety of pulse transformers

designed for a wide range of specialized electronic equipment and as a result are considered outstanding specialists in this field. This, coupled with their many other design specialties, points out the versatility of design and manufacturing facilities available at ITC.

HIGH TEMPERATURE TRANSFORMERS

Constant technological developments in the electronic industry, primarily in the area of military defense, are rapidly increasing the applications for reliable, high temperature transformers. ITC has accumulated much data and experience in the design, fabrication and testing of these transformers to meet rigid Military Specifications.

Transformers have been constructed using practically every high temper-



ature material that has been available in the last decade to insure transformer reliability and performance in the field. ITC's work on high temperature transformers has met with complete acceptance by both government and industry . . . you can put their "know-how" to work with confidence on high temperature transformer applications.

COMPUTER TRANSFORMERS

ITC engineers have, for several years, devoted considerable time to developing precision transformers for computer applications. These transformers have found complete acceptance among the outstanding computer manufacturers.

Illustrated are some examples of computer precision transformers typical of the engineering skill and resourcefulness gained as a result of constantly working to rigid technical requirements demanded in computer components.



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G O U L D S B O R O



TRANSFORMER

P E N N S Y L V A N I A



Industrial Insulation Breakdown Testers

DIELECTRIC TEST SET NO. 50

General: Designed to furnish the potentials required for dielectric tests conducted under MIL-C-13294A. Console type unit completely self-contained. Rating: Output is 5 kw at 1000 or 5000 V RMS.

Input: Operates from 220 V RMS, 60 cycle, single phase line.

Output: 1000 V RMS at 5.0 amps or 5000 V RMS at 1.0 amps, selection to be made by manual change-over switch mounted on the control panel. Voltage Control: Output voltage is continuously adjustable from zero to max. by panel mounted control driving a variable auto-transformer within the console.

Overload Protection: Instantaneous trip type circuit breaker is mounted on panel to interrupt circuit in case

of breakdown. Also serves as on-off switch for unit. Two pole type, rated to trip at 25 amps.

Indicators: Control panel has 2 pilot lights to indicate "line voltage on" and "high voltage on".

Metering: Voltage and current are simultaneously metered. An iron vane type ammeter having ranges of 0-1.0 amp. and 0-5.0 amperes is included in the output circuit. An iron vane type volt meter with 0-1000 V and 0-5000 V range is mounted on control panel.

Input Cables: 50-ft. line-cord furnished having 3 conductors; 2 for line circuit, 1 to ground set. Two 50 ft. 8KV cables furnished. Insulated fittings at remote ends of cables.

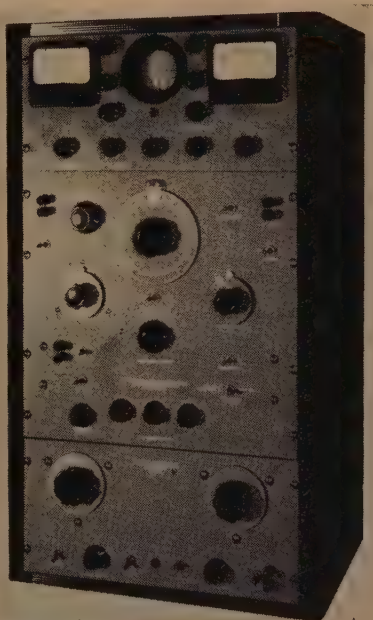
INSULATION BREAKDOWN TEST SETS

MODEL IT-25-A: Accurate indicator of grounds, shorts or opens. High voltage output and short circuit current: 500 V 1 amp-1500 V 360 ma, 1000 V 500 ma-1750 V 310 ma, 1250 V 420 ma-2000 V 370 ma. Input: 115 V, 60 cycles. Rating: 500 Va.

MODEL IT-630: Has two operating ranges. 0-3000 V RMS and 0.6000 V RMS, continuously variable, with circuit breaker. It is a convenient, compact and accurate means of testing insulation breakdown. Input: 115 V, 60 cycles. Rating: 1 KVA.

INCREMENTAL INDUCTANCE BRIDGE

MODEL 226 Three bridge circuits in one instrument. Owen-Hay-Maxwell. Range—1 Millihenry—2000 henrys. Test voltage—.01-300 volts—R.M.S. D.C. saturation—0-1000 M.A. Q—.06-300. Frequency—60 cycles internal, 20-5000 cycles external. Accuracy—1%. With the HAY arrangement, any inductance between 1 Millihenry and 2000 henrys can be measured provided the Q is larger than 5. With the OWEN arrangement, the same inductance range can be covered, but the Q must be comparatively low and can have a value as low as .06 at 60 cycles. The MAXWELL arrangement is suitable for the measurement of low Q coils (below 5 at 60 cycles) without superimposed D.C. and for the measurement of leakage inductance. Both the OWEN and the HAY circuits can be used with or without superimposed D.C. Automatically disconnects the D.C. supply from the bridge when it is put into the MAXWELL position.



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Antenna Wire & Transmission Cables:

Laminated teflon insulation having unusual high corona level and breakdown voltage complying with Air Force Specifications.

Coaxial Cables:

A complete range of sizes, impedances and attenuation of teflon insulated —55°C to 250°C complying with Government specifications and in addition BIW designs for special applications.

Coaxial Cables Miniature for Electronics:

Extremely small teflon insulated of unique design having low noise characteristics, and very suitable for miniaturization.

Electronic Hook-up Wire:

Extruded high-temperature vinyl, Kel-F and teflon for miniature high-temperature applications.

Engine Ignition Cable:

A variety of sizes of teflon ignition cable for jet engine installations approved by leading manufacturers.

Flame Detector Cable:

Heat and fire resistant special designs approved by major manufacturers of flame detector devices.

Flexible Telemetering Cable:

Miniature shielded cables, single, 2, and 3 conductor approved by many years of satisfactory service.

Fuel Gauge Wires:

Specially designed teflon insulated cables approved and adopted by the major manufacturers of fuel gauges.

Jet Engine Control Wire:

BIW standard teflon and fibreglass insulated approved and service tested as a dependable jet engine control wire.

Missile Wiring:

Complete range of teflon and fibreglass insulated small-size, high-performance missile wiring approved by leading missile manufacturers.

Multi-Conductor Cable:

BIW designs and manufactures multi-conductor cables to withstand the aircraft service conditions of low-temperature, vibration, light-weight and serviceability.

Power and Lighting Cable:

Complete range of sizes and ratings: 100°C, 125°C, 150°C and 200°C.

SOX Low Temperature

Multi-Conductor Cable:

A special series of low-temperature, multi-conductor cables approved from operating service life and applications such as propeller de-icers, rudder control, bomb doors, missile launching.

Thermocouple Wire:

Made to order special types for unusual applications utilizing teflon and fibreglass insulation.

ELECTRICAL EQUIPMENT

Elevator Cables for Control,

Annunciator and Lighting:

2 to 40 conductors, with and without steel supporting strands. Accepted standard by principal elevator manufacturers.

Extra Flexible Power, Lighting & Instrument Cable:

#24 to #0 flexible and extra-flexible strandings with pliable heat-resisting rubber and neoprene insulation for numerous applications such as relay contactors, mercury switches, reciprocating equipment and hinged panel apparatus.

Flexible Motor Lead Wire and

Appliance Wire:

Underwriter's approved #24 to #8 in temperature ratings of 75°C rubber, 80°C, 105°C vinyl insulation. Numerous colors and stripes available.

High temperature Wires and Cables:

BIW specializes in high-temperature wires using 105°C vinyl, silicone rubber, and teflon to produce cables with higher temperature ratings required in many applications:

- Motor and transformer lead cable

- High voltage units: precipitator, static neutralizer, Etc.
- Chemical apparatus requiring resistance to corrosion
- Multi-conductor cables

Multi-conductor cables:

BIW designs and manufactures multi-conductor cables of all types for electrical apparatus and equipment such as automatic machinery, x-ray apparatus, remote control devices and signaling equipment.

ELECTRONICS

Flexible coaxial transmission cable and pulse cable for airborne electronics.

- Hook-up wire: • 80°C, 105°C with or without fabric coverings.
- Shielded with protective covering
 - Available in a wide range of colors and tracers.

Low capacity Probe cables:

Low capacitance of 8 to 10 mmf/ft., extra flexible.

Low Noise Shielded Cables:

As a result of BIW developments a wide range of types and sizes are available designed to fit standard connectors.

Multi-conductor Cables:

BIW designed and manufactured over 900 made-to-order multi-conductor cables complying exactly with requirements for particular equipment.

Radiation Monitoring Cable for Nuclear Energy Locations:

Approved designs for use with the principle detection instruments.

TV Camera Cables:

BIW design has been approved and adopted by the major manufacturers of TV cameras and recognized by leading studios as the most serviceable cables available.

Telemetering Cables:

Miniature shielded cables single, 2 and 3 conductor as well as a variety of multi-conductor types.

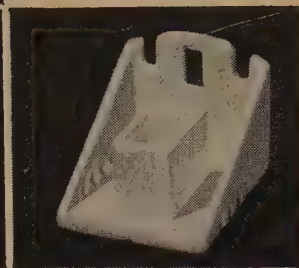
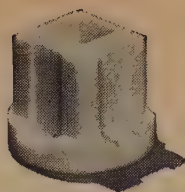
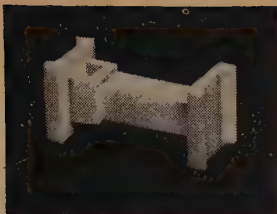


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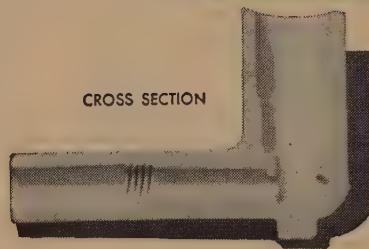
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High impact Phenolic Housing. Output-free air up to 70 CFM.

NO. 2¾

Rigid Steel Housing. Output-free air up to 58 CFM.

NO. 3

High impact Phenolic Housing. Output-free air up to 150 CFM.

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- BULLETIN B-101 — Detail Engineering Data on L-R Blowers
- BULLETIN B-203 — Data on the #1 Sub-Miniature Blower
- BULLETIN BW-10 — Complete Data on Blower Wheels

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AVAILABLE FROM STOCK!

Here are Blower Wheels manufactured from the finest material available, precision engineered and rigidly inspected to meet your most exacting requirements. A complete line of standard sizes available from stock for immediate delivery. Flexible manufacturing procedures insure rapid delivery of special sizes, material, finishes, and hub bores. Wheels normally stocked in cadmium plated steel, CW or CCW rotation. Write for Bulletin BW-10.

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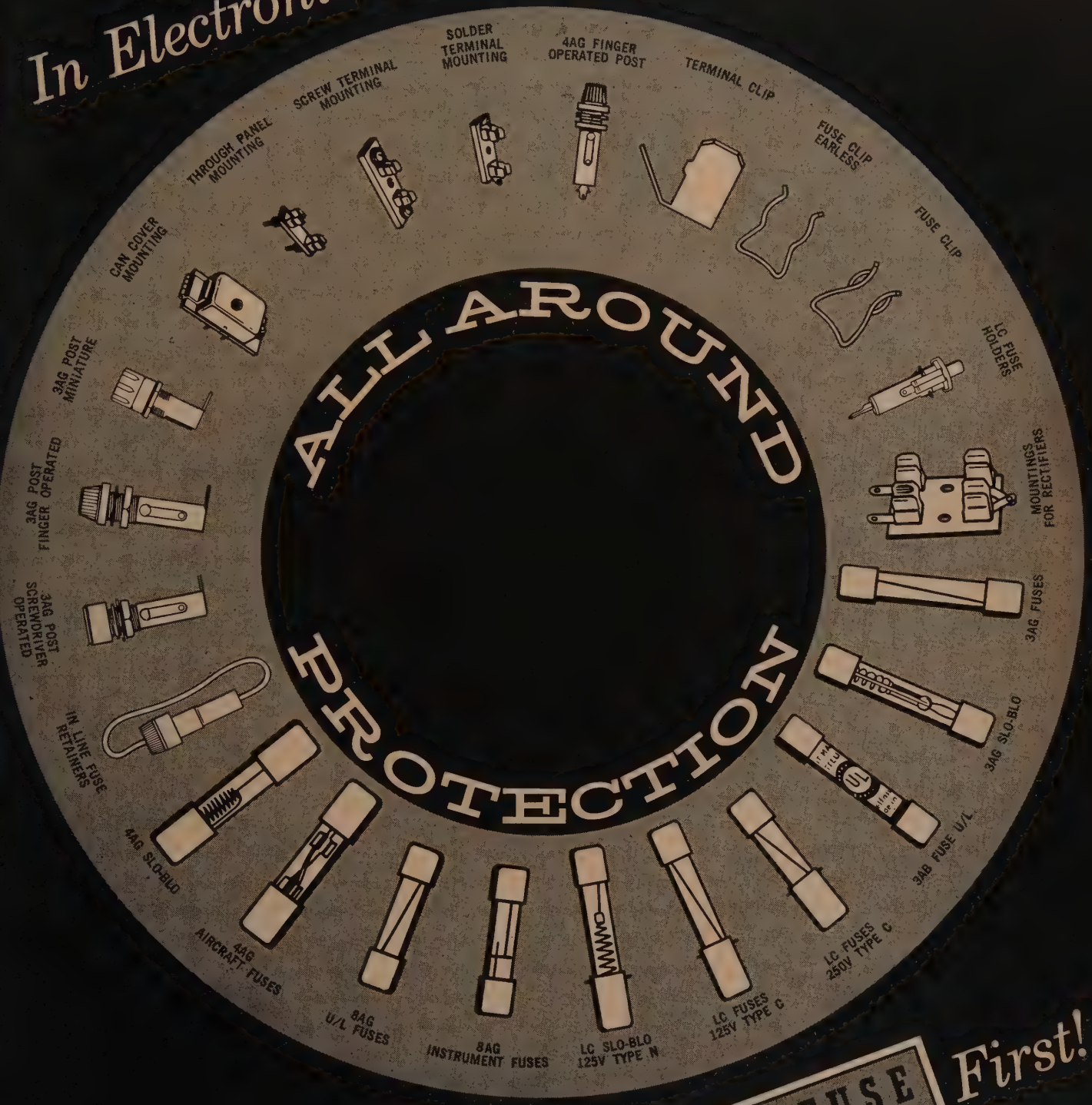


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RIPLEY
ESTABLISHED 1936

HEADQUARTERS for SMALL BLOWERS

L-R BLOWERS

Compact-Lightweight

Unexcelled in Performance

L-R Blowers available from stock with or without motors. Contact your local electrical-electronic parts distributor or the factory.



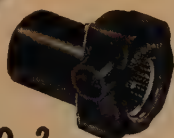
NO. 1

High impact Phenolic Housing. Output-free air up to 10 CFM.



NO. 1 1/2

High impact Phenolic Housing. Output-free air up to 23 CFM.



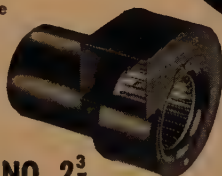
NO. 2

High impact Phenolic Housing. Output-free air up to 40 CFM.



NO. 2 1/2

High impact Phenolic Housing. Output-free air up to 70 CFM.



NO. 2 3/4

Rigid Steel Housing. Output-free air up to 58 CFM.



NO. 3

High impact Phenolic Housing. Output-free air up to 150 CFM.

Write for further information:

- BULLETIN B-303 — Stock Motor-Blower Assemblies
- BULLETIN B-101 — Detail Engineering Data on L-R Blowers
- BULLETIN B-203 — Data on the #1 Sub-Miniature Blower
- BULLETIN BW-10 — Complete Data on Blower Wheels

L-R "Whirlwind" BLOWER WHEELS

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Here are Blower Wheels manufactured from the finest material available, precision engineered and rigidly inspected to meet your most exacting requirements. A complete line of standard sizes available from stock for immediate delivery. Flexible manufacturing procedures insure rapid delivery of special sizes, material, finishes, and hub bores. Wheels normally stocked in cadmium plated steel, CW or CCW rotation. Write for Bulletin BW-10.

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President

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Stable compact units for storage of any form of electrical signal:

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Hingham Industrial Center
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Hingham, Massachusetts
Hingham 6-3100

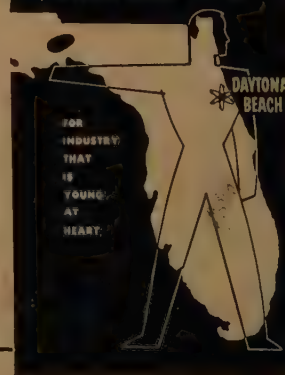


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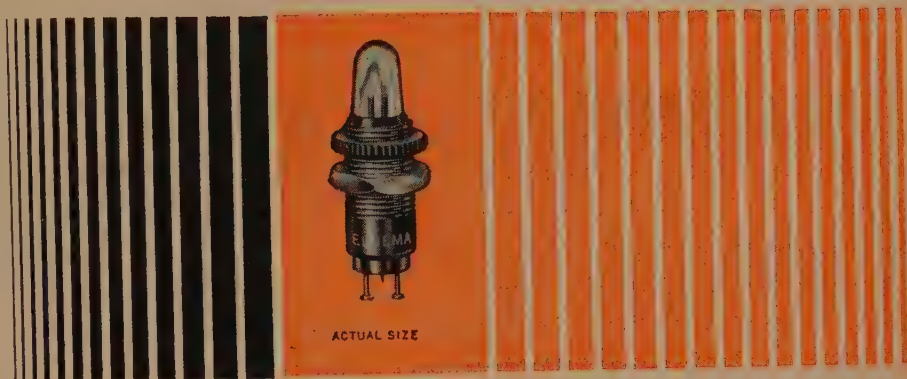
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extra reliability in extra-small size

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Locate open circuits,
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intermittents in
cables 10 to
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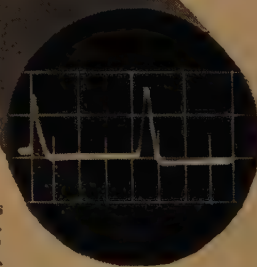
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All made to standards which exceed even rigid military specifications

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A complete line of Radio & TV types... the first truly new design in over two decades.

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Type ATM Autolytics
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For information concerning your specific application write to

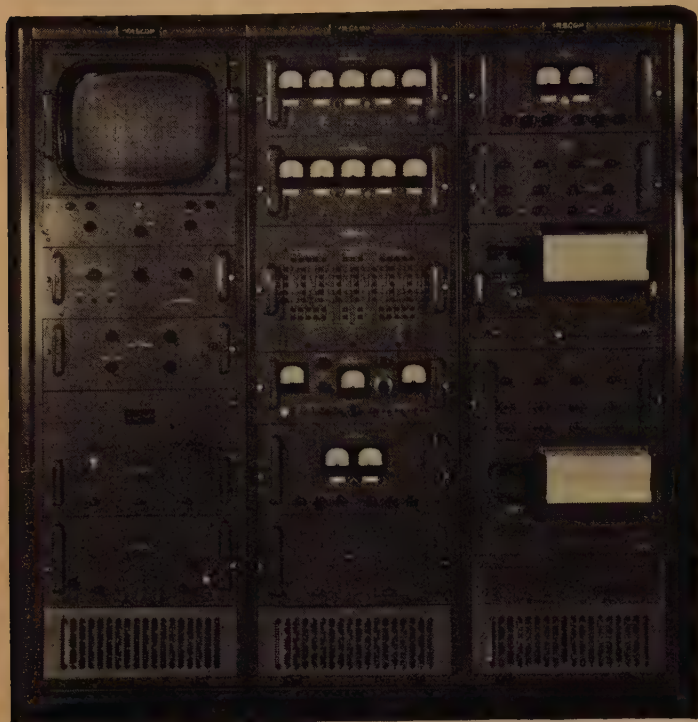
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ASCOP *Pulse Width* DATA SYSTEMS



M SERIES PW GROUND STATION

Complements ASCOP's PW Multicoders and Telemetering Sets. A "packaged" system for operational testing of airborne or land vehicles . . . and for static testing. Continuous automatic compensation of system zero and scale factor eliminates need for calibration and manual adjustment. Operates directly from PW signals of 30x30,

45x20 or 90x10 configurations — or indirectly at non-standard rates of 30, 45 or 90 channels by means of proper tape control. Provides for visual monitoring of all data channels and produces reduced graphic output records of selected channels in real time. Features missing data point correction for continuous synchronization. Easy access to slide-mounted chassis is also provided.



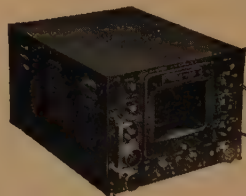
F SERIES MISSILE TELEMETERING SETS

For short life applications, where the ultimate in compactness, ruggedness, and performance are required. Standard packages as shown are available for 30 x 30 and 45 x 20 operation. Special configurations, using standard functional components, may be ordered. Some components are sold separately.



D SERIES LOW LEVEL MULTICODERS

Low level sensitivity opens a whole new field of mobile instrumentation. Combine super-sensitivity, high accuracy and a wide selection of data channels (up to 88). Ultra high altitude pressurization and rugged design make them ideal for recovery and repeat use. Available for 15 or 30 mv range. High speed models operate at 900 PPS . . . low speed models at 112.5 PPS. Operate from low level or standard transducers. Accept double ended balanced inputs.



C SERIES MONITOR EQUIPMENT

A means for rapid inspection and visual monitoring of airborne or test stand data. Permits engineer to check or read data both before and during test runs on entire telemetering train from commutator through the tape recording system, saving a great deal of data reduction time. Samples data at repetition rates of 1 1/4 to 30 samples per second. Provides reliable performance under extremes of vibration, acceleration, deceleration, etc.



G SERIES LOW LEVEL MULTICODERS

A commercial series for use in wind tunnels, chemical processes, nuclear reactors, etc., where automatic data handling is mandatory. Provide 88 channels of low level information with sampling speeds of 10 or 1 1/4 samples per second. Output is in pulse width form . . . can be recorded on magnetic tape, transmitted over a line or used to modulate a transmitter. Input sensitivity 15 mv. Available for rack mounting or in a bench cabinet.



A SERIES ACCESSORY EQUIPMENT

RF Preamplifier units for greatly increased receiving range, and RF Multicoupler for operation of up to 4 receivers from a single Preamplifier or antenna. Broad band operation 215 to 235 megacycles.

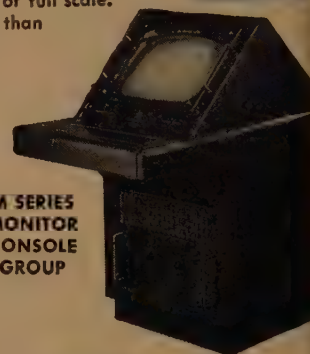
MULTICHANNEL DATA TRANSMISSION OR RECORDING USING RF CARRIER FM SUBCARRIER OR SINGLE MAGNETIC TAPE TRACK

ASCOP pulse width coding and time division multiplexing techniques result in systems featuring large numbers of data channels, highest accuracy, reliability, flexibility and ease of operation. That is why ASCOP Telemetering Systems have been first choice for the nation's most vital projects involving automatic handling of data from aircraft, missiles, test stands, nuclear reactors, etc. With an ASCOP PW System as many as 88 data channels may be sampled, transmitted and/or recorded and reduced in real time. Up to 1232 data channels are available by means of multiple tape recording, or up to 1760 data channels by means of sub-commutation. System accuracy is better than 1%.

TYPICAL SYSTEM PERFORMANCE (Utilizing Zero and Full Scale Reference)

NUMBER OF DATA CHANNELS	26	41	86
SAMPLES/CHANNEL/SECOND	30	20	10
FREQUENCY RESPONSE, CPS	5	3.3	1.5

LINEARITY . . . Better than $\pm 0.5\%$ of full scale.
STABILITY . . . Long term drift less than $\pm 1\%$ of full scale.



M SERIES MONITOR CONSOLE GROUP



APPLIED SCIENCE CORP. OF PRINCETON

PRINCETON, NEW JERSEY

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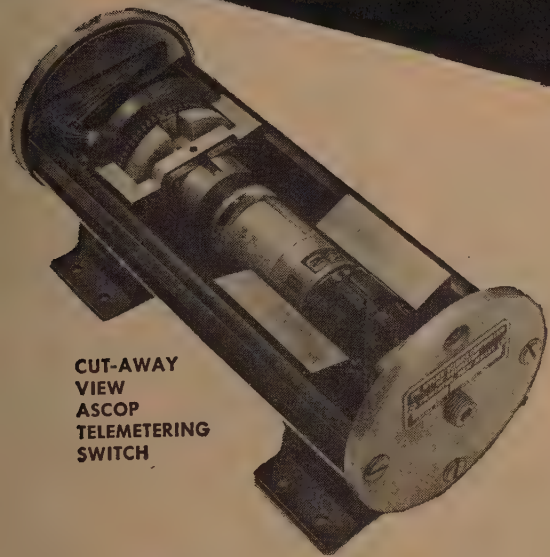
Send for Our Catalog



BOEING 707

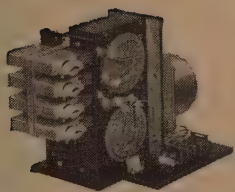
ASCOP Sampling Switches — *first* with performance data on America's *first* jetliner!

CUT-AWAY
VIEW
ASCOP
TELEMETERING
SWITCH

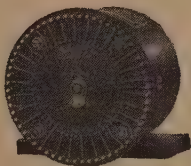


When the Boeing 707 — America's first jetliner — enters service on the air routes of the world, seven years of development will be behind it. The most tested airliner in aviation history, prototype of the 600-mile-per-hour plane has already been flying more than two years . . . has already been ordered by eleven famous airlines.

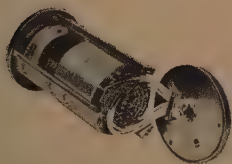
ASCOP high-speed rotary sampling switches were employed in the Boeing 707 to provide detailed information on flight attitude, air speed, temperature, altitude, stress, etc. As many as 100 measurements of aerodynamic behavior can be provided by ASCOP switches . . . providing vital statistics that contribute to superior performance. ASCOP is the leading manufacturer of rotary sampling switches and has 300 standard models for use in telemetering, drift compensation, thermocouple sampling, radar display and countless other applications. Write for complete details.



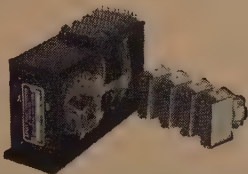
THERMOCOUPLE
SAMPLING SWITCH



CRO DISPLAY
SAMPLING SWITCH



GUIDANCE
SAMPLING SWITCH



STRAIN GAUGE
SAMPLING SWITCH

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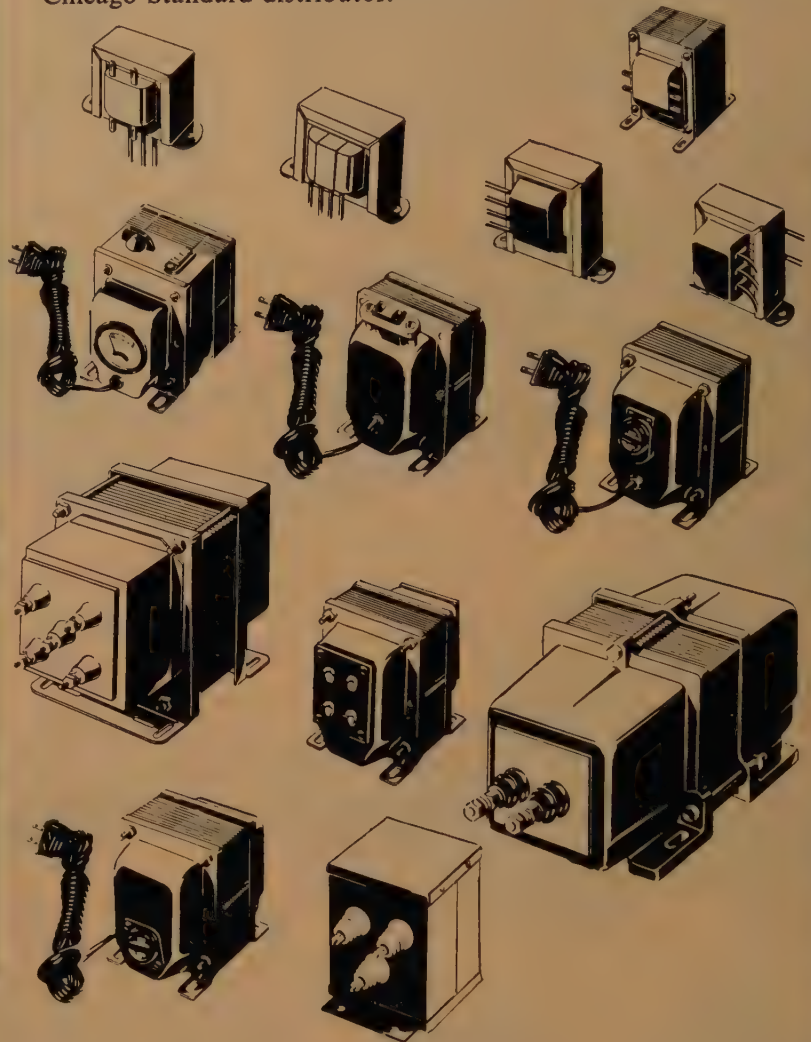
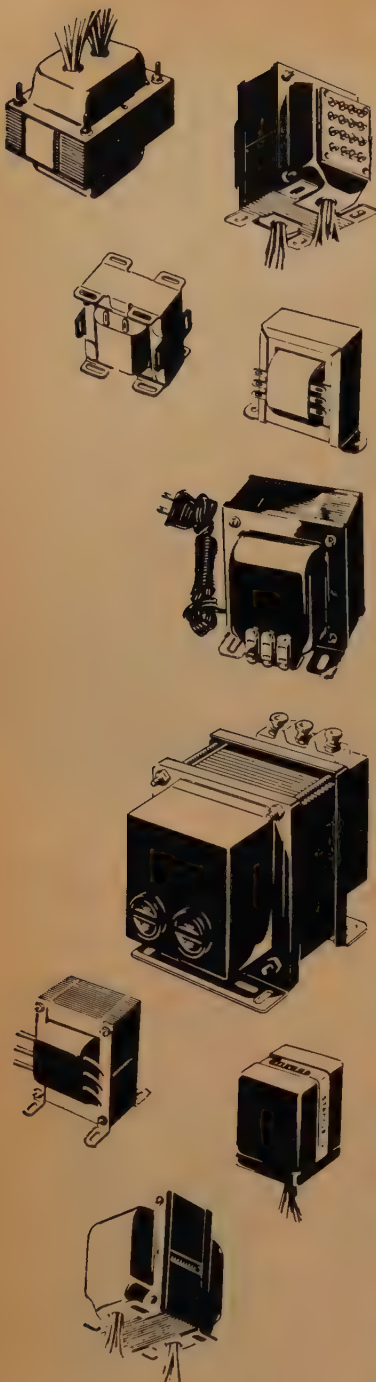
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STOCK TRANSFORMERS

for dependable, low cost operation

For simplicity, economy and fast delivery—design with stock transformers. Whether you need one unit or one hundred, Stancor catalog transformers are available from stock, through your local Chicago Standard distributor.



INPUT

line to line, line to grid, plate to grid, plate to p-p grids, intercommunication, transceiver

INTERSTAGE OUTPUT

p-p plates to p-p grids, p-p plates to parallel grids, multi-purpose plate to voice coil, p-p plates to voice coil, hum reducing, tube to line, line to voice coil, 70.7V line, 140V line, outdoor, universal, high fidelity, transceiver

POWER DRIVER MODULATION

dual and multiple secondaries, cathode ray tube, selenium rectifier plate to p-p grids, p-p plates to p-p grids, "Poly-Pedance" plate and "Poly-Pedance"

FILAMENT

single and multiple secondaries

CHOKES

swinging, smoothing, audio

ISOLATION

straight and step-down

AUTOFORMERS

straight and line adjusting

TV SWEEP CIRCUIT PLATE

BIAS SUPPLY AUDIO FILTERS SELENIUM RECTIFIER



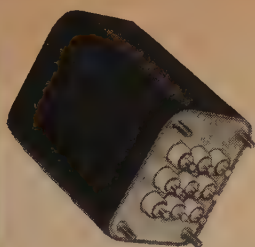
CHICAGO STANDARD TRANSFORMER CORPORATION

3521 ADDISON STREET
CHICAGO 18, ILLINOIS

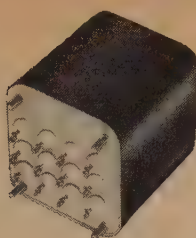
Export Sales: Roburn Agencies, Inc., 431 Greenwich St., New York 13, N. Y.

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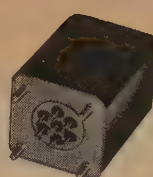
June, 1957 — MID-MONTH — ELECTRONICS BUYERS' GUIDE



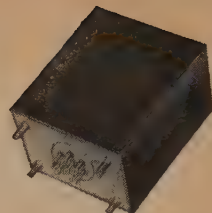
Hermetically Sealed for MIL-T-27A



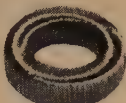
400 Cycle Units—
military standard cases



Transistor Audios—
military standard cases



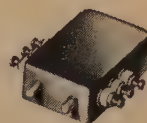
Saturable Transformers



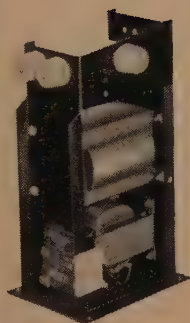
Toroids—open or encapsulated



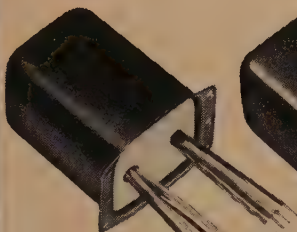
Isolation — Step-down Transformers



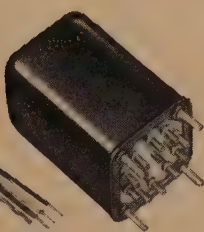
Pulse Transformers



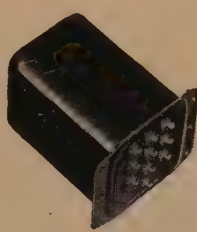
High Voltage Filament
Transformer and Choke



color-coded leads



pin-type terminals



solder lug terminals

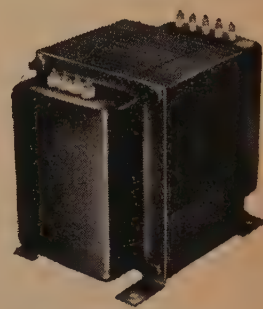
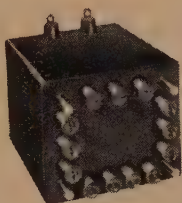


Plate Transformers

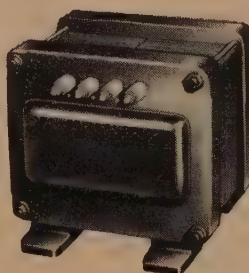
"SEALED-IN-STEEL" TRANSFORMERS



High Q Chokes



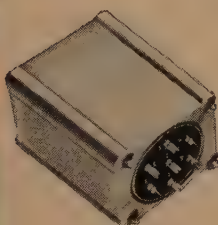
Epoxy Cast Transformers



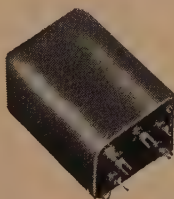
Modulation Transformers



Splatter Chokes



High Fidelity Audio Transformers



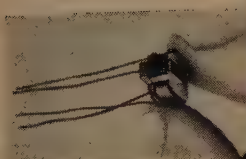
Silastic Encapsulated Transformers



Audio Filters



Miniature Audio
Transformers



Transistor Transformers
open case

CHICAGO TRANSFORMERS for High Reliability Applications

Hermetically sealed transformers that meet MIL-T-27A specifications and "Sealed-in-Steel" units for commercial applications are available—in stock—at Chicago Standard. In addition to over 500 of these stock units, special transformers can be built to your specifications by Chicago Standard's engineering staff—the largest and most experienced in the transformer industry. This versatile group includes specialists in filters, magnetic amplifiers, pulse transformers, toroids, transistor transformers and other difficult-to-design units.



CHICAGO STANDARD TRANSFORMER CORPORATION 3521 ADDISON STREET
CHICAGO 18, ILLINOIS

These Components Solve Exacting Problems!

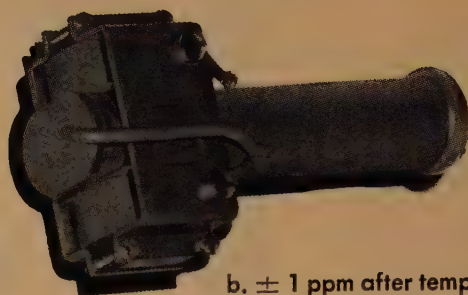
FORK OSCILLATORS

for the most precise timing and frequency control — new fork unit designed for high environmental vibration uses

FEATURES

In Audio Frequency systems, the fork has advantages over other types of oscillators including crystals

- **INTRINSIC STABILITY** — Superior at Audio Frequencies
- **TEMPERATURE COMPENSATED**
- **RUGGED MECHANICAL DESIGN**
- **STABILITY NOT DEPENDENT ON AMPLIFIER COMPONENTS** (in recommended circuits)
- **STABLE OPERATION WITHIN 5 MINUTES**
- **LOW AGING RATE**



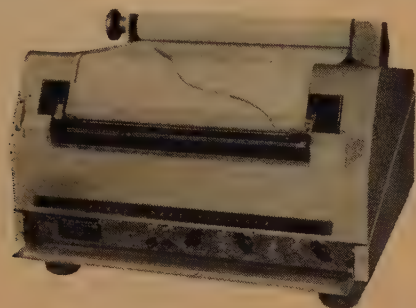
SPECIFICATIONS

frequency stability

a. ± 3 ppm room ambient
(no oven)

b. ± 1 ppm after temperature equilibrium is attained
 $\pm 5^{\circ}\text{C}$

c. Long term drift less than
5 ppm per annum after first
3 months



DATA RECORDER AND TIMING UNIT

The highly accurate linear scan rate of the recording stylus makes the Model RJC Precision Depth Recorder ideally suited for the measurement of short or long pulse phenomena. The cumulative stylus position error does not exceed one scan in twelve days (at 1 scan per second) while the maximum instantaneous error is 0.015%.

TOP HAT

TUBE CLAMPS

RETAINERS FOR PLUG-IN COMPONENTS

An improved clamp for securing electron tubes, relays, capacitors and other plug-gable parts.

POSITIVE Component even when inverted will not loosen under the most severe shock or vibration.

CORROSION RESISTANT Hats and Posts are stainless steel. All materials and

finishes comply with Armed Forces Specifications.

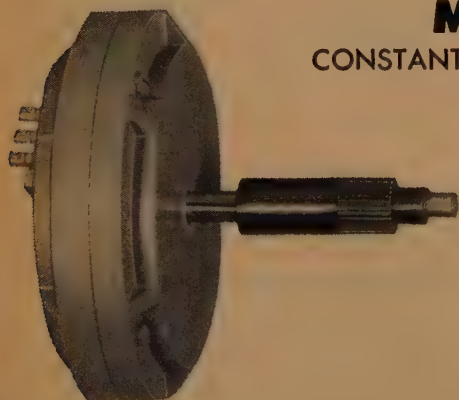
RESILIENT Positive retention is achieved with minimum rigidity or strain on component.

ACCESSIBLE Clamp fits on top of component and can be fastened or released easily without tools.



MS-2 SYNCHRONOUS MOTOR

CONSTANT ANGULAR ROTATION ± 0.1 DEGREES—NO LOAD TO FULL LOAD!



A phonic wheel type motor capable of operating from vacuum tube amplifiers on signal frequencies from 60 to 4000 cps. It was designed to provide the extremely accurate and invariable speed required for driving fork-synchronized facsimile equipment. Its unique characteristics will be found the answer to many problems involving the need for constant angular rotation or precise synchronization.

The Model MS-2 Motor can be operated single phase in the plate circuit of a single-ended amplifier or as a two phase motor when driven by a push-pull amplifier. The latter is recommended since the two-phase connection runs quieter and provides more power with less heating. The motor current is about 75 milliamperes per phase. The power input may be as high as 20 watts.

Complete information and prices will be mailed promptly on request

TIMES FACSIMILE CORPORATION

540 West 58th Street, New York 19, N.Y. • 1523 L Street N.W., Washington 5, D.C.

Machlett Electron Tubes for Broadcasting & Industry

MODULATOR — OSCILLATOR — AMPLIFIER TRIODES

TYPE	CATHODE		A. F.	MAXIMUM ANODE RATING				FULL INPUT FREQ. MCS.	COOL- ING
	VOLTS	AMPS		VOLTS	AMPS	INPUT WATTS	DISS. WATTS		
ML-2C39A	6.3	1.0	100	1000	0.125‡	125	100	2500	F-A
ML-212E	14.0	6.0	16	3000	.350	—	275	1.5	C
ML-220C	21.5	41.0	40	15000	1.5	—	10000	4	W
ML-220CA	21.5	41.0	40	15000	1.5	—	5000	4	F-A
ML-228A	21.5	41.0	16	6000	1.5	—	5000	3	W
ML-232B	20.0	60.0	40	20000	3.0	—	25000	3	W
ML-240B	21.5	41.0	40	12000	1.7	—	10000	20	W
ML-241B	14.0	6.0	16	3000	.350	—	275	7.5	C
ML-279A	10.0	21.0	10	3000	.800	—	1200	20	C
ML-298A	27	225	32	20000	11.0	—	100000	4	W
ML-298B	27	225	57.5	20000	11.0	—	100000	4	W
ML-342A	20.0	67	40	20000	2.5	—	25000	4	W
ML-343A	21.5	57.5	40	18000	2.0	—	10000	4	W
ML-343AA	21.5	57.5	40	18000	1.5	—	5000	4	F-A
ML-354	12.0	220	25	15000	12	150000	75000	20	W
ML-356	7.5	170	20	12500	6.0	60000	22500	25	W
ML-357B	10.0	10	30	4000	0.5	1800	400	100	C
ML-379A	10.0	21.0	10	3000	.800	—	1200	20	C
ML-381	6.0	1.0	100	3500	0.01*	35*	35*	3000	F-A
ML-880	12.6	315	20	10500	6.0	60000	20000	25	W
ML-889A	11.0	120	21	8500	2.0	16000	5000	50	W
ML-889RA	11.0	120	21	8500	2.0	16000	5000	40	F-A
ML-891	22.0	60	8.5	12000	2.0	18000	6000	1.6	W
ML-891R	22.0	60	8.5	10000	2.0	15000	4000	1.6	F-A
ML-892	22.0	60	50	15000	2.0	30000	10000	1.6	W
ML-892R	22.0	60	50	12500	2.0	18000	4000	1.6	F-A
ML-893A	20.0	183	34.5	20000	4.0	70000	20000	5	W
ML-893AR	20.0	183	34.5	20000	4.0	70000	20000	5	F-A
ML-5530	5.0	55	26	5000	1.75	8750	4000	110	F-A
ML-5531	6.3	92	24	10500	3.75	30000	10000	30	F-A
ML-5541	7.5	57	26	8500	2.75	23000	10000	110	F-A
ML-5604	11.0	176	19.5	12500	3.0	32500	10000	25	F-A
ML-5606	22.0	60	50	14000	2.0	25000	10000	1.6	W
ML-5619	11.0	176	19.5	12500	3.0	32500	20000	25	W
ML-5658	12.0	310	20	12500	5.0	60000	20000	15	W
ML-5666	11.0	120	21	10000	2.0	20000	12500	22.5	W
ML-5667	11.0	120	21	10000	2.0	20000	7500	22.5	F-A
ML-5668	22.0	60	50	14000	2.0	28000	20000	5	W
ML-5669	22.0	60	50	14000	2.0	28000	10000	5	F-A
ML-5681	12.0	220	25	15000	12.0	150000	75000	30	W
ML-5682	16.5	325	30	16000	20.0	300000	120000	30	W
ML-6256	12.6	27	21	5500	1.5	7000	5000	110	W
ML-6257	12.6	27	21	5500	1.5	7000	5000	110	W
ML-6258	12.6	27	21	5500	1.5	7000	3000	110	F-A
ML-6420	7.0	85	20	10000	2.2	20000	12500	30	W
ML-6421	7.0	85	20	10000	2.2	20000	10000	30	F-A
ML-6422	7.0	85	90	12500	2.5	30000	20000	30	W
ML-6423	7.0	85	90	12500	2.5	30000	12500	30	F-A
ML-6424	7.0	120	20	12500	3.5	40000	20000	30	W
ML-6425	7.0	120	20	12500	3.5	40000	12500	30	F-A
ML-6426	8.0	200	20	12500	8.0	80000	40000	30	W
ML-6427	8.0	200	20	12500	7.0	80000	20000	30	F-A
ML-6576	7.5	170	5.5	12000	5.0	45000	22500	25	W

New TRIODES

ML-2C39WA	5.8	1.0	100	1000	.125‡	100	100	2500	F-A
ML-2C41	6.3	1.03	100	3500†	4.0†	35	35	3000	F-A
ML-5530-H	5.0	55	26	8500	1.75	10000	4000	30	F-A
ML-5736	6.0	60	22	5000	1.4	5000	2500	60	F-A
ML-6623	6.0	60	22	5000	1.4	5000	2500	30	F-A
ML-6696	13.0	205	20	16000	11	120000	60000	30	W
ML-6697	13.0	205	20	16000	11	120000	35000	30	F-A

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TYPE	CATHODE		ANODE RATINGS		INSULA- TION	COOL- ING
	VOLTS	AMPS	INV. PKV	PEAK MA		
ML-102A	20	19.0	75	750	Air	C
ML-103	10	11.5	125	78	Oil	R-C
ML-108	13	12.5	140	200	Oil	R-C
ML-115	10	11.5	125	100	Air	C
ML-120	13	12.5	140	200	Air	C
ML-121	10	11.5	140	100	Oil	R-C
ML-141	5.5	6.5	125	750	Oil	C
ML-170	13	12.5	200	200	Air	C
ML-180	13	12.5	200	200	Oil	R-C
ML-199	12	23	110	10000	Air	C
ML-222A	21.5	41	25	5000	Air	W
ML-322	6.3	.95	.8	600	Air	C
ML-5575/100	20	24	150	1000	Air	C
ML-5576/200	20	32	150	2500	Air	C

New HIGH VACUUM RECTIFIERS

ML-142	3.8	6.6	100	250	Oil	R-C
ML-148	5.7	6.6	150	1000	Oil	R-C
ML-6908	12	23	150	10000	Oil	R-C

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DP-1 (Tetrode)	6.3	12	950	125000§	2	150	C	
ML-6544 (Shielded Grid Triode)	6.0	60	90	25000	75	1000	F-A	

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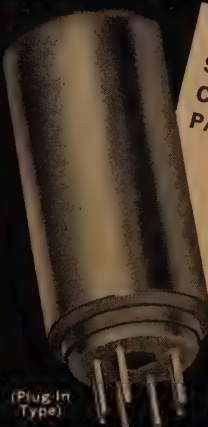
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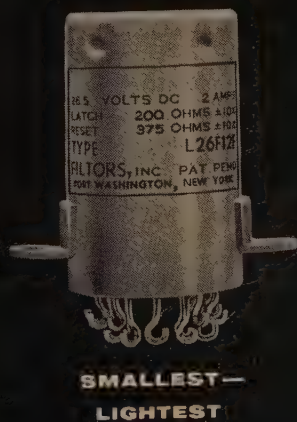
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Complete performance data on each of these 6 CALIDYNE Series 174 Shaker Systems are contained in New Bulletin 17400.

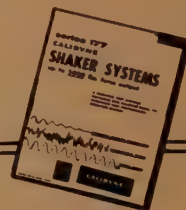


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The Model 177 is one of a new series of "wide-band" shakers designed for higher frequency operation and lower input requirements. It is the Basic Unit for five completely integrated CALIDYNE Vibration Test Systems. Oscillatory linear forces up to 5000 lbs. are generated and precisely controlled over wide ranges for vibration research and test of products.

A separate Bulletin 17700 details the specifications, performance data, basic components and accessories of the new Model 177 CALIDYNE Shaker and its five Shaker Systems.



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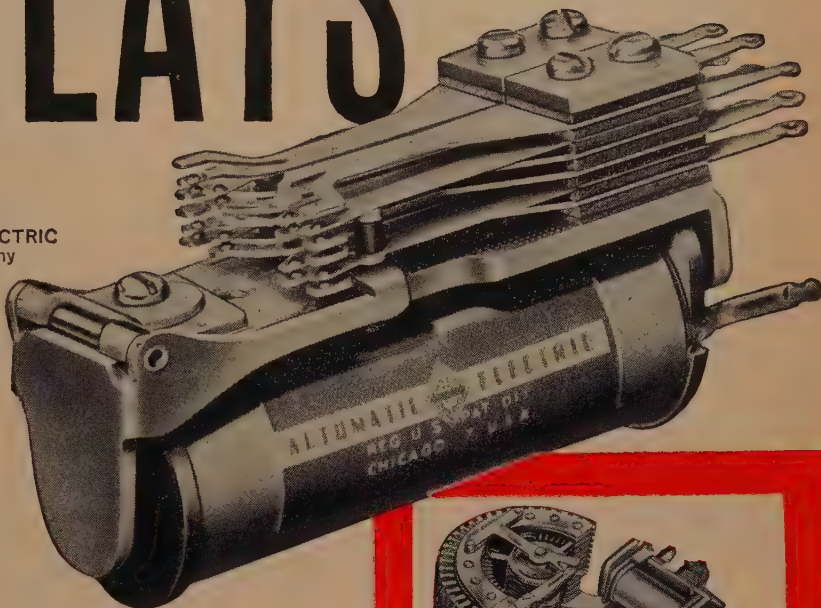
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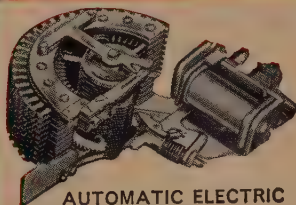
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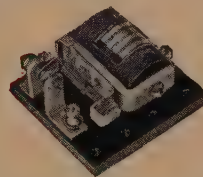
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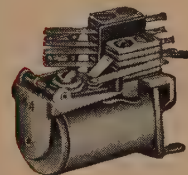
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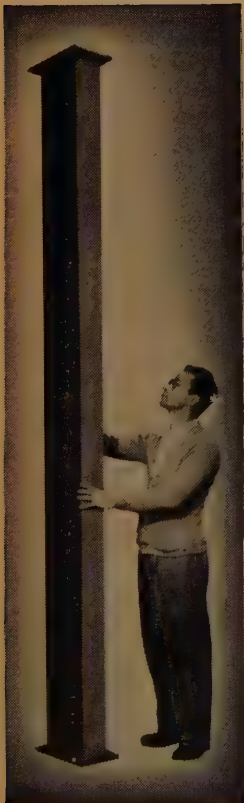
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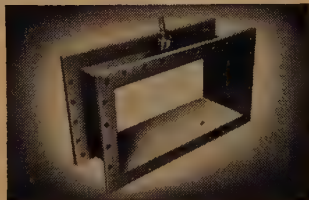
WAVEGUIDE AND COMPONENTS



Slotted line for WR2100



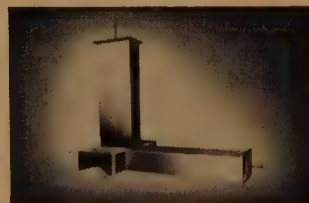
12 ft. section WR975 waveguide



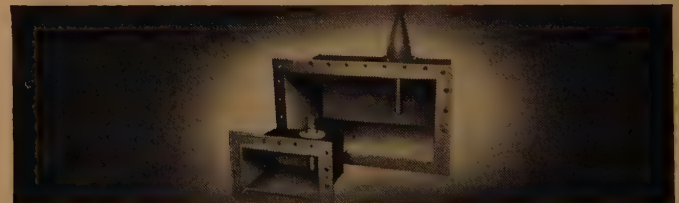
Close-loop directional coupler



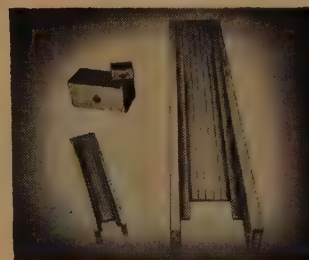
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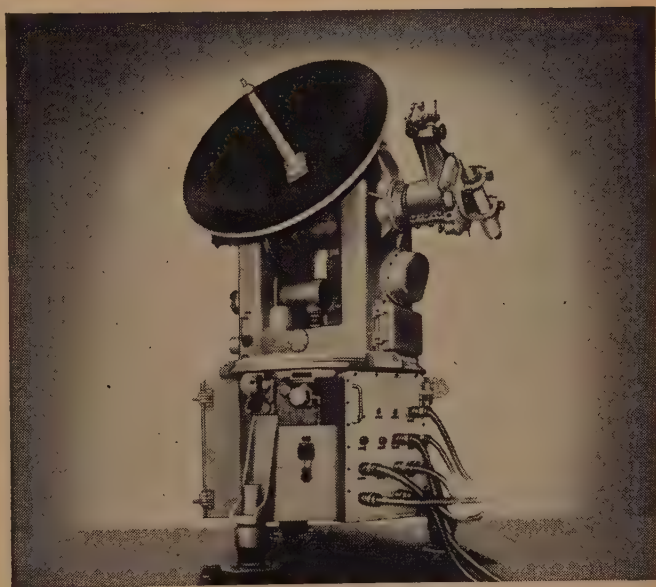
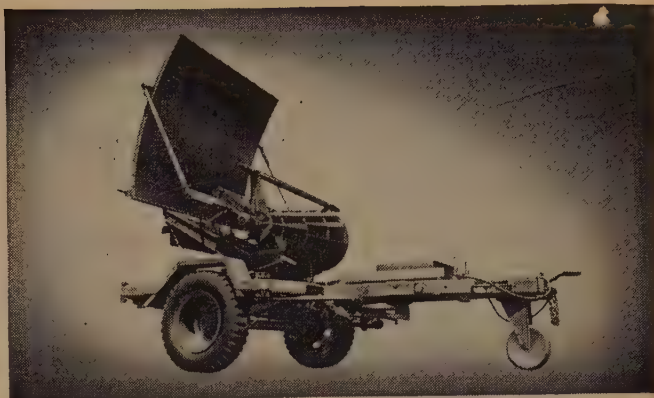
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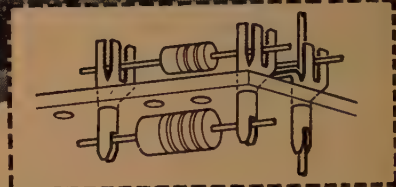
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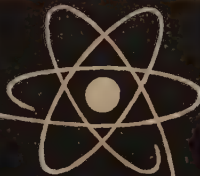
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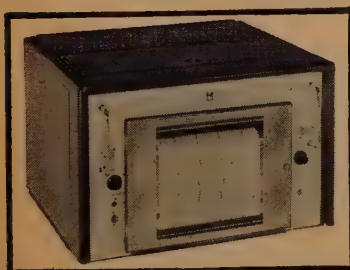
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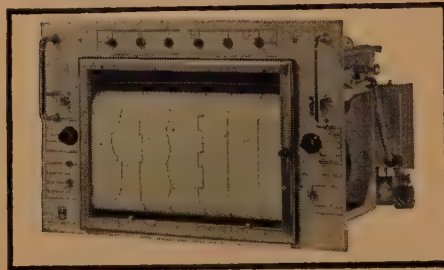
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- A greater range of signals can be recorded with optimum resolution than with any other direct writing Oscillograph. New Brush Oscillographs have the widest chart speed range available—from 10" per day to 10" per second.
- The units are designed for physical interchangeability. The 4 and 6-channel Oscillographs are mounted in identical chassis. Systems can be mounted in standard 19-inch racks, or bench top or floor consoles.
- Coordinated *system* design means that one system can meet many requirements. You can cover the full range of direct writing Oscillograph application with Brush equipment.
- Accessories available: event markers, timing markers and remote control units.



Model BL-254, Four-Channel.



Model BL-266, Six-Channel.

Oscillographs for standard rack or bench top console. The 4-channel unit can be expanded to six channels to meet your changing requirements. Electrically controlled chart drive transmission—standard in all multi-channel oscillographs—permits instantaneous switching and remote control. Choice of 8 or 16 chart speeds. Choice of ink or electric.

AMPLIFIERS



Model BL-530, Rack Mounting



Universal* Amplifier BL-520; with Portable Case BL-380.

Brush Amplifiers feature low drift scale expansion, choice of single ended or balanced inputs. May be operated on a wide range of line voltages and frequencies. New Universal* Amplifier can be used with *both* resistive or inductive transducers. When used with Brush Direct Writing Oscillograph, permits measurement and direct recording of physical phenomena such as strain, stress, torque, force, etc. Amplifier includes direct coupled section that may be used separately for voltage and current measurements.

WHAT IS YOUR MEASUREMENT PROBLEM?

These Brush instruments can simplify your testing and development work.

FOR ELECTRICAL MEASUREMENTS

Amplifiers for systems to measure and record voltages and currents.

BL-530 Dual Channel D. C. Amplifier

BL-550 D. C. Amplifier, High Gain

BL-560 Servo-Analyzer

BL-905 A. C. Amplifier, High Gain

BL-954 A. C. Pre-Amplifier, High Gain

BL-533 Single Channel D. C. Amplifier

BL-536 Multichannel D. C. Amplifier

BL-266D Fault Recorder

BL-288 Event Recorder

FOR PHYSICAL MEASUREMENTS

Amplifiers for measuring stress, strain, torque, force, pressure, etc.

BL-520 Universal* Amplifier

BL-350 Input Box (Resistive)

BL-345 Input Box (Inductive)

Tension Analyzer*

FOR RESISTANCE-WELDING MEASUREMENTS

For measuring and recording welding variables.

BL-325 Welding Analyzer*

FOR SOUND MEASUREMENTS

BL-1516 Strain Gage Apparatus

BL-1015 Low Frequency Beat Frequency Oscillator

BL-1602 Frequency Distortion Measuring Bridge

BL-1609 1/3 Octave Filter Set

BL-1014 Beat Frequency Oscillator

BL-1606 Vibration Pickup Preamplifier

BL-2002 Heterodyne Voltmeter

BL-2105 Frequency Analyzer

BL-2109 Third Octave Spectrum Analyzer

BL-2304 High Speed Level Recorder

BL-2370 Polar Diagram Recorder

BL-2601 Microphone Amplifier

BL-3302 Frequency Response Recorder

DIRECT WRITING OSCILLOGRAPHS

Portables

BL-201 Single Channel Direct Inking

BL-202 Double Channel Direct Inking

BL-221 Single Channel Direct Inking and Electric

BL-222 Double Channel Direct Inking and Electric

BL-274 Four Channel Direct Inking and Electric

BL-276 Six Channel Direct Inking and Electric

Rack Mounting

BL-261 Single Channel Direct Inking and Electric

BL-262 Double Channel Direct Inking and Electric

BL-254 Four Channel Direct Inking

BL-256 Six Channel Direct Inking

BL-264 Four Channel Direct Inking and Electric

BL-266 Six Channel Direct Inking and Electric

BL-268 Eight Channel Direct Inking and Electric

BL-4002 Sound Absorption Measuring Equipment

BL-4109 Artificial Ear

BL-4111 Condenser Microphone

BL-4119 Microphone Calibration Apparatus

BL-4211 Constant Sound Pressure Source

BL-4210 Artificial Voice

BL-4308-4309 Miniature Accelerometer

BL-4707 Automatic Frequency Response Tracer

INDUSTRIAL INSPECTION EQUIPMENT

BL-110 Surfindicator*

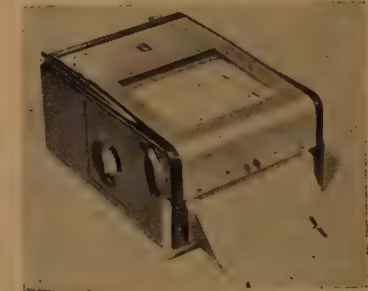
BL-144 Metal Monitor

PRODUCTION INSPECTION EQUIPMENT

BL-1504, BL-1506 Deviation Test Bridge

BL-2423 Megohmmeter and D. C. Tube Voltmeter

(*Trade-Mark)



Model BL-274, Portable Four-Channel

Portable Oscillographs feature light weight and small size; they are self-contained. Equipped with electrically controlled chart drive transmission—16 chart speeds available.

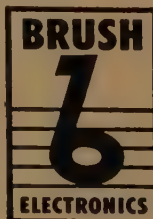
SERVO-ANALYZER AMPLIFIER



New amplifier, coupled to a Brush direct writing oscillograph, provides a package unit to record performance of servo systems in carrier frequency range of 50 to 10,000 cps. Offers exceptional frequency response, flexibility, high accuracy.

BRUSH ELECTRONICS

3405 Perkins Avenue, Cleveland 14, Ohio



COMPANY

DIVISION OF



BRUSH ELECTRONICS

VIBRATION & NOISE INSTRUMENTATION

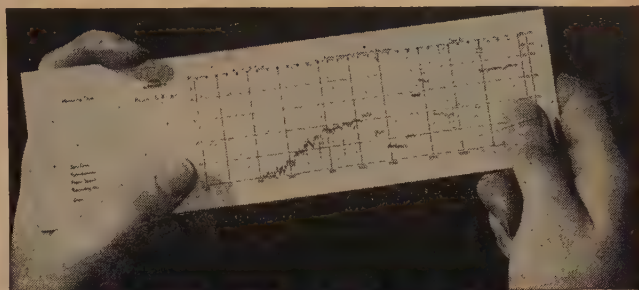
Chart record produced by the Brush Spectrum Recorder presents a complete frequency and level analysis of noise and vibration. It is an example of the way Brush instrumentation can aid *your* analysis of noise, vibration or strain.

- All sounds from 14 cycles to 36,000 cycles per second automatically scanned and recorded by the Brush Spectrum Recorder

to eliminate laborious plotting of data.

- Measurements made in one-third octave steps, to positively identify frequencies.
- Complete recording through the complete frequency range made in 21 seconds, to save valuable engineering time.

The Spectrum Recorder is one unit in the most com-



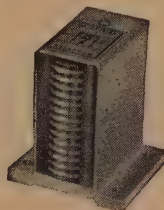
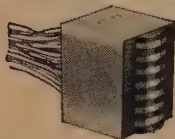
plete line of noise and vibration instrumentation available (manufactured in Denmark by Bruel & Kjaer). (See box opposite page). Thus Brush can offer you matched systems, and offer application assistance on complete projects.



MAGNETIC HEADS

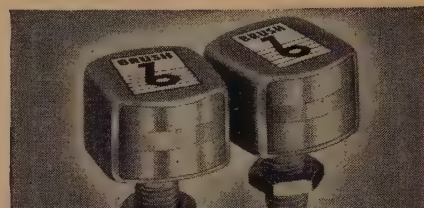
Brush offers single channel record-reproduce and erase heads, multi-channel record-reproduce heads, miniature record-reproduce heads and erase heads.

Multichannel heads available in standard designs in encased assembly or cartridge assembly up to 26 channels. New high precision models offer extremely close tolerances.



MULTICHANNEL HEAD DESIGN FEATURES

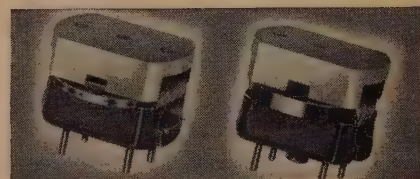
- All gaps in precise alignment.
- Individual channels are closely held in precisely machined metal brackets or cast into one integral block of specially selected synthetic resin.
- Complete assembly is non-microphonic and impervious to moisture.
- Mu-metal shields between individual channels.
- Ground lead supplied for shields and pole pieces.
- Wide range temperature operation.
- Special design features may be supplied to meet your requirements.



SINGLE-CHANNEL REDHEADS

Halftrack
BK-1090 Record/Reproduce
BK-1091 High Impedance
BK-1110 Erase

Fulltrack
BK-1250 Record
BK-1251 Reproduce
BK-1252 Erase



CARTRIDGE TYPES

The BK-900 series heads were designed for single-channel recording on any magnetic medium.

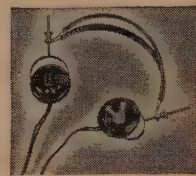
HEADPHONES

Brush crystal headphones have Bimorph® crystal drive element of high impedance, offer wide range response with uniform output, are lightweight, rugged, shock-proof. Brush also offers a complete line of cartridges for acoustic applications.

Model BA-200 Ext. range headphones Model BA-200 Gen. purpose headphones
Model BA-206 High fidelity headphones Model BA-201 Single phone



Model BA-200. Designed for GENERAL PURPOSE applications including laboratory, studio and skilled amateur home use. High impedance; ideal for multiple installations.



Model BA-206. Designed for use where high fidelity and smooth frequency response are of paramount importance. Features exceptionally flat frequency response.

PIEZO-ELECTRIC ELEMENTS

for electro-acoustical and electro-mechanical applications: Plates of Rochelle Salt; Ammonium Dihydrogen Phosphate (ADP); Lithium Sulphate; Barium Titanate (Brush Ceramics A & B); Dipotassium Tartrate (DKT); Cylinders, curved plates, bowls and other shapes of Barium Titanate (Brush Ceramics A & B);

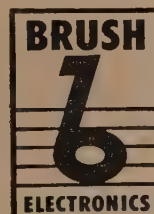
For complete information write Dept. KK

Bimorphs* of Rochelle Salt; Ammonium Dihydrogen Phosphate (ADP); Barium Titanate.

ELECTRO-OPTIC ELEMENTS — Unpolished blanks of Ammonium Dihydrogen Phosphate (ADP); Potassium Dihydrogen Phosphate (KDP) for electro-optic shutters, etc.

BRUSH ELECTRONICS

3405 Perkins Avenue, Cleveland 14, Ohio



COMPANY

DIVISION OF

CLEVITE
CORPORATION



RUGGEDIZED METERS



1½" Square

Meets MIL-M-10304 (SIG.C.) Accurate within ±3% of full scale deflection. Basic d-c ranges 0-100 d-c ua, 0-1

d-c ma, and 0-10 d-c mv. RF and VU meters and other ranges also available.



SUB-MINIATURE ROTARY SWITCH



Wafer size 1" x 7/8". Twelve positions per deck . . . one to three decks. One, two, three or four poles per deck. Shorting or non-shortng contacts. Positive indexing with 30° spacing.

SPECIALISTS

in Sub-Miniature Panel Meters

FIRST
FIRST
FIRST
FIRST

in U.S. to manufacture 1" diameter meter.
to produce 1" and 1½" illuminated meters.
to produce 1½" self-contained DB and VU meters.
to produce Miniature Side Indicators.

1" ROUND

MODEL 100



1" barrel diameter. Full 90° scale arc, scale length .770". VU, DB and illuminated meters also available with external accessory attached.



MODEL 150



MODEL 153

1½" ROUND and SQUARE

1½" barrel diameter. Full 90° scale arc, scale length 1.322". Model 153 meets MIL-M-3823 requirements. Also available: self-contained VU and DB meters — illuminated meters with lamp housing attached.

SIDE INDICATORS*

- GREATER READABILITY
- REDUCES PANEL AREA 1/3 OVER CONVENTIONAL METER INSTALLATIONS OF SAME SCALE LENGTH
- HORIZONTAL OR VERTICAL MOUNTING

THREE SIZES AVAILABLE:

MODEL 1120—Scale length 1.3".

MODEL 1135—Scale length 2.1".

Front external zero adjuster.

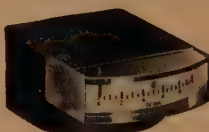
MODEL 1145—Scale length 2.75".

Front external zero adjuster.

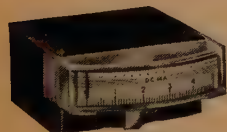
International Instruments' components lead the way for miniaturization through practical engineering design.

*Pat. Pending

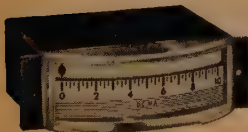
ENGINEERING DATA SHEETS
COMPLETELY DESCRIBING THESE INSTRUMENTS ARE AVAILABLE. WRITE FOR YOUR COPIES TODAY.



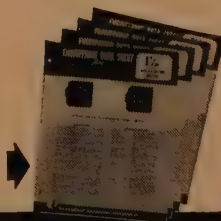
MODEL 1120



MODEL 1135
Single Horizontal Mounting



MODEL 1145
Single Horizontal Mounting



international instruments

INCORPORATED

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JAPAN

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your electronic component
requirements

SONY C37A Condenser Microphone—World's most perfect microphone. 20-18,000 ± 2 db. Uni- and omnidirectional. Gold-sputtered plastic diaphragm.

\$300

I/S SONY - 10 Dynamic Microphone—50-12,000 cycles

\$19.95

2 and 3 Channel Magnetic Tape Heads

Phono Turntables and Tone Arms

INTERSEARCH

7 ARCADIA, CINCINNATI 8, OHIO

Silver-Zinc BATTERIES

for critical uses

AUTOMATICALLY ACTIVATED:

A very recent development in missile auxiliary power, this design is remarkably simple and reliable. Having inherently precise voltage regulation, less than 1-second elapses between activation signal and full output under load.

Examples:

Model P3A: Simultaneous output of 360v @ 100 ma. 6.8 v. @ 20 amp. Hermetically sealed, —65°F. to 212°F. operation. 9.8 lbs.

Model P13A: 56 v @ 245 amp. Hermetically sealed, only 23 lbs. Inherent ± 1.0 v regulation.

All automatic models are "special," but usual requirements are delivered in 60-90 days.

SECONDARY (RECHARGEABLE)

All cells shipped dry-charged. Range of current standard single-cell types:

Ampere hours: 0.5-50

Voltage output: 1.5 v nominal

Current output: Up to 1,100 amp

Size & Weight: Equal to the best silver units obtainable.

Batteries are readily made up of individual cells as required, encased in stainless steel box.

Manually-activated primary (one-shot) batteries are also available.

Development & Manufacture of Precision ElectroChemical and ElectroMechanical Devices



WRITE FOR
COMPLETE DATA

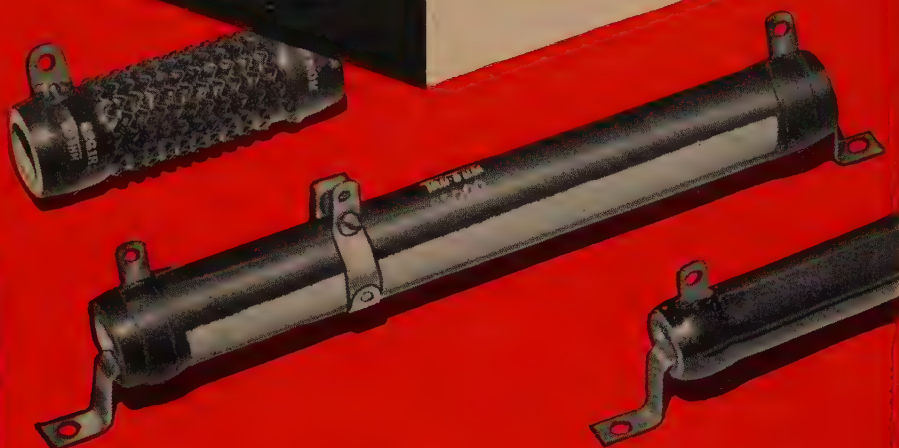
FRANK R. COOK CO.
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T RU

O HM

P RODUCTS

AMERICA'S
TOP
LINE OF
RESISTORS
and
RHEOSTATS



Find out why TRU-OHM is the world's largest producer of wire-wound resistors. We have the volume because we deliver . . . on time . . . the finest resistors and rheostats to meet any and every need . . . and at prices that will please you.

We have a complete line of resistors in stock . . . or we can rapidly design resistors for special needs. Your inquiry is invited.

TRU-OHM Power Rheostats

From 25 watts to 150 watts, we have rheostats for all applications . . . singly, in tandem rheostat assemblies . . . in a variety of types.



PRODUCTS

Division of
Model Engineering
& Mfg., Inc.

General Sales Office: 2800 N. Milwaukee Avenue, Chicago 18, Ill.
Factory: Huntington, Indiana

"Largest producers of wire-wound resistors in the U.S.A."

MANUFACTURERS: Power Rheostats, Fixed Resistors,
Adjustable Resistors, "Econohm" Resistors, "Tru-rib" Resistors

We always
ship on time
... and we
expedite for you

Our latest catalog is available
... write for yours today!

Announcing A Complementary New Line Of ALL-TRANSISTORIZED INSTRUMENTS

BY

KAY

DESIGNED FROM THE TRANSISTOR OUT . . .



KAY

Audiolator

All-Transistorized Beat-Frequency Audio Oscillator

FEATURES

- Constant Output, No Line Voltage Influences • Built-In Stability By Means of Feedback • Output Constant with Frequency: 1 db over range • No Hum • Battery Power Supply—Long Life • No Grounds Needed—Place Across Any Transmission System • Excellent for Field Service, Military, Commercial and Domestic Hi-Fi, Industrial Applications

SPECIFICATIONS

Frequency Range: 50 cycles to 15 KC
Output Voltage: 1 volt at 600 ohms
Output Impedance: 600 ohms
Output Flatness: 1 db over entire range
Attenuator: Continuously variable from 1 volt to 40 db below 1 volt
 Δf dial: 0 adjust—fine frequency control. Constant frequency shift over entire range
Power Supply: Mercury or penlight cells—300 hrs. life
Dimensions: 6" x 2" x 3 3/4"
Weight: 2 lbs.
Price: \$149.50 f.o.b. Pine Brook, N. J.



KAY

Transvolter

Model Video
All-Transistorized, Broad-Band
Audio-Video Voltmeter

FEATURES

- Inherent stability due to feedback amplifier design • Broad-Band frequency response 10 cycles to 10 mc • Inherent advantages with use of transistors instead of vacuum tubes—small size—light weight—long life—rugged use—lower power consumption—high conversion efficiency • Low level measurement over frequency range • May be used as a humless audio-video amplifier

SPECIFICATIONS

Frequency Range: 10 cycles to 10 mc. Direct Reading in volts and db
Amplifier Frequency Response: Flat $\pm .5$ db over range
Accuracy of Measurement: $\pm 5\%$ of full scale reading
Voltage Range: 1 Millivolt to 1 volt full scale—7 ranges
Sensitivity: Will measure down to 250 Microvolts
Input Impedance: Capacity 5 micromicrofarads; Resistance Component 0.5 Megohms at 1 mc
Audio-Video Amplifier: Maximum output .25 volt at 75 ohms, Gain up to 40 db
Price: \$495.00, f.o.b. Pine Brook, N. J.



KAY

Transiplay

Transistorized,
Miniature Power
Supply

FEATURES

- Stable Metered Output • Continuously Variable Output • Low Impedance • No Ripple • High Current • Positive or Negative Bias Available

SPECIFICATIONS

Input Voltage: 105-125 V, A.C., 50-60 cps
Output Voltage: 0.5V—7.0 V, D.C., Continuously variable
Output Current: Maximum 300 Ma
Impedance (Internal): 0.5 ohms
Ripple: Less than 1 millivolt at full load
Regulation: 50 Millivolts output variation over input voltage range
Weight: 3 1/2 lbs.
Dimensions: Width 5", Height 6 1/2", Depth 6 1/2"
Price: \$125.00 f.o.b. Pine Brook, N. J.



KAY

Transisifier

Small, Modular,
Plug-in, Wide-Band
Transistorized Video Amplifier

FEATURES

- Broad-Band Response to 15 mc • Completely Transistorized—Small, Self-Contained, Compact Portable Unit • Signal Gain Controlled by Overall Feedback—Built-In Stabilization • No Hum • Long Stable Life—Powered By Three Penlight or Mercury Cells • Units May Be Cascaded to Provide Additional Gain

SPECIFICATIONS

Frequency Response: 10 db position: 3 db down at 20 cycles and 15 mc—20 db position: 3 db down at 20 cycles and 10 mc
Gain: 10 db and 20 db switchable
Input Impedance: Capacitance 15 micromicrofarads—Resistive Component—20,000 ohms at 1 mc to 15,000 ohms at 10 mc
Output Impedance: 75 ohms, approximately
Maximum Output Voltage: 0.15 volts 10 db position 0.30 volts 20 db position
Price: \$85.00 f.o.b. Pine Brook, N. J.



KAY

Minilator

Multi-Crystal-
Controlled Transistor
Oscillator

FEATURES

- Transistorized for Long-Life—Self-Contained Mercury Cells • (For Replacement, Ordinary Penlight Cells May Be Used) • Selection by Switch of 1 mc, 2 mc, 5 mc • External jack for any crystal from 1 mc to 5 mc • Stable; Adjustable to WWV Frequencies • Clean Waveform with Stabilizing Diode • Amplitude Feedback* • Portable, Light-Weight, Small Cast-Aluminum Case • Low Priced—Many Uses

SPECIFICATIONS

Output: 0.25 volt at 1000 ohms impedance level
Dimensions: 2 1/4" x 1 3/4" x 4 1/2"
Weight: 12 oz.
Price: \$95.00 f.o.b. Pine Brook, N. J. Pat. Pend.

KAY

Transiprobe

All-Transistorized,
Low-Capacity
RF Probe

FEATURES

- First transistorized broad-band probe, 20 cycles to 15 mc • Low power dissipation, all transistorized • Built-in stability, amplifier feedback • Open design for easy manipulation • No hum

SPECIFICATIONS

Frequency Response: 20 cycles to 15 mc, 1 db down at 50 cycles and 12 mc, 3 db down at 20 cycles and 15 mc
Output Impedance: Nominal 50 ohms
Input Impedance: Capacitance, 4 micromicrofarads; resistive component, 100,000 ohms
Gain: 1:1 (Unity gain), held constant by feedback amplifier
Maximum Input Voltage: 0.3 volt peak-to-peak
Power Supply: Mercury cells, 800 hour life; constant supply over life of cells. Separate power supply and connecting cables provided with probe
Price: \$125.00, f.o.b. Pine Brook, N. J.



KAY

For Literature and Complete Specifications, Write

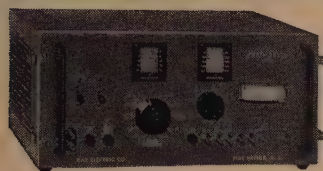
ELECTRIC COMPANY

14 Maple Avenue, Pine Brook, N. J.
Dept. EB-6

KAY Electronic Test & Measuring Instruments

• Sweeping Oscillators • Noise Figure Measurement • TV Picture & Sound Signal Sources • Marker Generators • Pulsed Carrier Generators • TV Transmitters • Color Generators • Signal Generators • Attenuators • Sound Spectrographs • Gain and Loss Test Sets • Spectrum Analyzers • Vibration Analyzers • Vacuum Tube Voltmeters • Transistorized Test Instruments • Power Supply • Voltmeters • Probe • Video Amplifier • Crystal Oscillator • Audio Oscillator

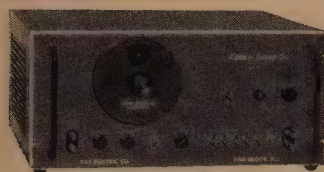
SWEEPING OSCILLATORS



Vari-Sweep

INST.	RANGE	TUNING	WIDTH	OUTPUT	PRICE
MEGA-SWEEP.....	50kc-1000 mc	continuous	0-40	100mv	\$465
CALIBR. MEGA-SWEEP.....	50kc-1000 mc	single dial	0-50	100mv	495
MEGA-SWEEP 111A.....	10mc-950 mc	zero level	0-40	.15V rms 70 ohms	575
MEGA-SWEEP 112A.....	450mc-900 mc	base line	0-40	.3V rms 300 ohms	575
VARI-SWEEP.....	800mc-1200 mc	single dial	Up to 30mc plus	1.0V rms 70 ohms	695
LIGNA-SWEEP C.....	2-220 mc Fund	continuous	Up to 15mc plus	1.0V rms 70 ohms	350
ULTRA-SWEEP.....	TV, FM, Video	continuous	0-60 mc	3.0V rms 70 ohms	895

SWEEPING OSCILLATORS WITH MARKS



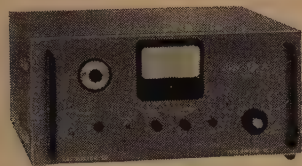
Rada-Sweep Sr.

INST.	RANGE	TUNING	WIDTH	MARKERS	OUTPUT	PRICE
MARKA-SWEEP	50kc-20mc	3 ranges	complete	6 crystals	1.0V P.-P.	\$525
MODEL VIDEO.....	50kc-20mc	50kc-20mc	range		70 ohms	
MARKA-SWEEP						
MODEL VIDEO TTV.....	50kc-8mc	cont. variable	8mc	5 crystals	1.5V rms	695
		CW signal		1 variable	70 ohms	
MARKA-SWEEP						
MODEL VIDEO 50.....	50kc-50mc	contin.	4-50mc	5 crystals	1.0V P.-P.	695
			contin. variable			
VARI-SWEEP						
MODEL RADAR.....	10-145 mc Fund	contin.	30mc+	11 crystals	1.0V rms	950
				1 variable	70 ohms	
VARI-SWEEP						
MODEL IF.....	4-120 mc Fund	contin.	30mc+	11 crystals	1.0V rms	950
				1 variable	70 ohms	
RADA-SWEEP SR.....	1-260 mc Fund	6 switched bands	30-70mc	24 crystals	0.5V rms	545
					70 ohms	less crystals
MEGA-SWEEP						
MODEL MARKER.....	10-500mc	contin. center	50kc-40mc		0.15V rms-70 ohms	745
	400-950mc				0.07V rms-70 ohms	
KILO-SWEEP.....	50kc-2mc	contin.	contin. to 100kc	6 crystals	.5V rms	575-700
	-5mc				70 ohms	
	-10mc					
SONA-SWEEP.....	5kc-200kc	contin.	20kc	6 crystals	.5V rms-70 ohms	575
RADA-SWEEP.....	30 & 60 mc	center	20mc or 3mc	9 crystals	.25V rms-70 ohms	395
RF-P MARKA-SWEEP.....	IF + 12 channels	switchable	15mc	picture and sound	.5V rms-70 ohms	695



Marka-Sweep
Model Video 50

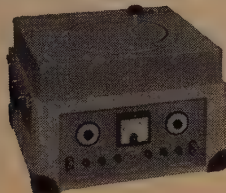
NOISE FIGURE MEASUREMENT . . . NOISE GENERATORS



Mega-Node Sr.

INST.	RANGE	NOISE FIG. RANGE	PRICE
MEGA-NODE.....	5-220 mc	0-16db @ 50 to 300 ohms	\$325
MEGA-NODE SR.....	10-3000 mc	0-20db @ 50 ohms	\$790
MICROWAVE.....	1200-26,500 mc	Fluorescent Tube 15.8 ± .25 db	\$295-\$695
MEGA-NODES		Inert Gas Tubes 15.2 ± .1 db	(with power supply)
RADA-NODE.....	5-26,500 mc	0-21db ± .25 db	\$1,395 covering
		IF strips @ 30 and 60 mc	range 5mc to 400mc

SOUND ANALYSIS



Echo-Vox Sr.

INST.	DESCRIPTION	FREQ. RANGE	PRICE
VIBRALYZER.....	Vibration Frequency Analyzer	5-4400 cps.	\$2500
SONAGRAPH.....	Sound spectrograph for frequency analysis of audio energy	85-8000 cps.	1995
SONALATOR.....	Dynamic translator for visible speech display	100-4000 cps.	1595
ECHO-VOX, SR.....	Provides variable periods of time delay at audio frequencies	40-12,000 cps.	1495
SONA-STRETCHER.....	Speech stretcher for slowing speech to 1/2 normal tempo	100-4000 cps.	950
AUTO-VOX.....	Variable audio time delay. Dual Channel Input.	40-12,000 cps	1795

OTHER INSTRUMENTS



Microtler

INST.	RANGE	RANGE OF MEASUREMENT	FEATURES	PRIC
KILO-Q.....	20 cps-1 mc	Q, 0-12.5, 0-25, 0-50, 0-125, 60 mmf-1 mf Cap. Range		\$895
MICROLTER 50 VTVM.....	100 cps-50 mc	0-250, 0-500		495
TRANSALYZER.....	50 kc-50 mc	Full Scale: 1 millivolt-1V.7 ranges	May be used as 50mc video amp.	1595
MEGA-MATCH.....	10 mc-1000 mc	Measures Alpha and Alpha Cutoff-Collector and Emitter Current, 2 Voltages-Emitter to Base, Emitter to Collector and Base to Collector		895
UTILATOR.....	4.5-220 mc	Contin. tuned sweeping oscillator	Displays reflected energy. Check matching impedance	295
GAINSET.....		Fundamental Freq. Utility Oscillator	0.7V rms into 75 ohms metered	1995
MEGA-PIX.....		AGC'D	AGC'D	350
RADA-PULSER SR.....	Carrier Freq. 12-80mc	Color or Black and White Transmitter	.25V output into 70 ohms. Specify Channel	745

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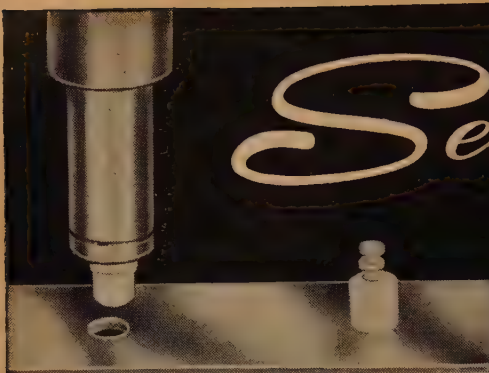
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ELECTRONICS BUYERS' GUIDE—June, 1957—MID-MONTH

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483



Sealectro "PRESS-FIT"™ TEFLON TERMINALS



Miniature "Press-Fit" terminals. Hundreds of different types and sizes.



Subminiature terminals. A dozen fit on a quarter!



"Press-Fit" terminals. (Below) Test-Point Breakaway connections with two-piece jacks and plugs used for patch-cord board.



● Let Sealectro solve your terminal problems with original, genuine, tried-tested-perfected Teflon "Press-Fit" terminals and proper installation. Take advantage of real engineering collaboration. Use our specialized and outstanding production facilities for variety, uniformity, and fastest deliveries.

MINIATURES

One-piece stand-offs and feed-thrus. Simplest, fastest, cheapest installation. No threads, nuts, washers required. Eliminate breakage; shattering, vibration, fungus, corrosion and other drawbacks. Choice of lugs and metal finishes. Hundreds of standard types.

SUBMINIATURES

Smallest insulated terminals available for miniaturization programs. Despite diminutive size, these terminals withstand severest-service conditions as found in guided missiles, radar, communications gear, electronic computers and industrial electronics. Wide choice of types and lugs.

CONNECTORS

Two-section (male and female) terminals for breakaway connections such as for multiple plugs and receptacles, plug-in crystal diodes and similar components, flybacks, plug-in coils and forms, etc. Jack and plug members "Press-Fit" into chassis holes, casings, strips, etc.

TEST-POINT JACKS

Rugged miniature test-point jacks featuring either (SKT-8 and SKT-9) stamped brass or (SKT-10) machined beryllium-copper contact members. Take standard instrument test probe or a companion plug. Ideal for test points on metal panels, permitting connections to circuitry or components for external testing. Used on metal panels for cost-reducing and unbreakable patch-cord boards.

IN EIGHT COLORS!

Sealectro "Press-Fit" terminals are available in eight RETMA color-code colors—brown, blue, red, orange, yellow, green, gray and white, for color-coding as well as for added eye appeal in any assembly.

Install them
**FAST and
TO LAST!**



Fastest, simplest, cheapest installation in three steps: (1) Punch or drill hole with standard machining; (2) Countersink entrance edge according to Sealectro's time-tested specs; (3) With insertion tool in

chuck of drill-press or arbor press, center over hole and apply pressure. Press-Fit, that's it! And genuine "Press-Fit" terminals stay put—for good!

*Samples
and Data . . .*

Write on business stationery for sample terminals, as well as helpful engineering literature. Our local field engineer will gladly call if you wish.

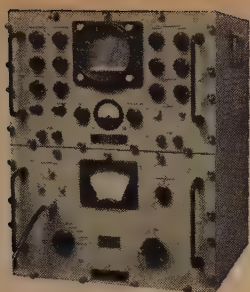
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Manufacturers of "PRESS-FIT" TERMINALS
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LA-18 SPECTRUM ANALYZER

Bench-size Spectrum Analyzer featuring high stability and wide range in small size.

Continuous coverage, 10.0 to 16,000 mc calibrated without external heads. 3.0—32,000 mc usable range. 0.5 to 25 mc spectrum width, 7.5 kc resolution. Internal spectrum calibrator. Bulletin LA-18



LA-61 FREQUENCY METER

Highly accurate UHF Frequency Meter featuring internal calibration, rugged construction.

Frequency range 500 to 2000 mc in two bands, 0.001% accuracy, precision high-speed semi-direct calibration, 0.0001% oven-controlled crystal standard. Standard 19" panel 12 1/4" high, rack or table mounting. Bulletin LA-61



LA-593 PULSE GENERATOR

Light, compact, double-pulse generator for general field or laboratory use. Bench or rack mounting.

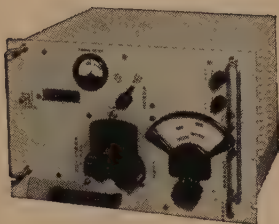
20-200,000 pps internal trigger, 0-200 kc external; 1.5 to 2500 microsecond delay, 0.5 to 2500 microsecond pulse width, one or two pulses. Output impedances 2000, 200 or 75 ohms. Approx. 0.1 microsecond rise time. Bulletin LA-593-D.



LA-5 FREQUENCY METER

Convenient field instrument designed and built to military standards for fast and accurate frequency measurement.

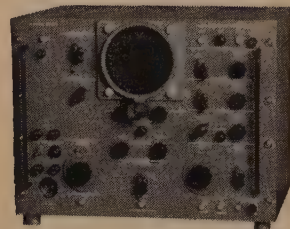
Frequency range 10 to 100 mc in three ranges, color-coded scales for use by production line personnel, semi-direct calibration, accuracy 0.001%, internal oven-controlled crystal standard, 0.0001%, input less than 500 microvolts. Standard 19" panel, 12 1/4" high, rack or table mounting. Bulletin LA-5-6.



LA-6 FREQUENCY METER

VHF frequency meter matching LA-5 in appearance, identical in operation.

Frequency range 100 to 500 mc in two color-coded ranges. Internal high-speed semi-direct calibration, with accuracy of 0.001%, internal oven-controlled crystal standard 0.0001%. Input less than 500 microvolts. Standard 19" panel, 12 1/4" high, rack or table mounting. Bulletin LA-5-6.



LA-239C OSCILLOSCOPE

General purpose, wide band oscilloscope, covering 5 to 20 mc, military standard construction, nomenclature AN/USM-50.

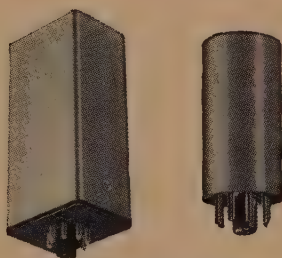
Frequency range 5 cycles to 15 mc flat, 0.03 v/cm sensitivity, internal voltage calibration, Z axis timing markers 0.2 to 2000 microseconds, internal trigger generator. Sweep speeds to 14 cm per microsecond. Ruggedized construction, standard rack mount. Bulletin LA-239C.

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LA-259 OSCILLOSCOPE

Five-inch militarized high-performance oscilloscope incorporating all the features of the famous LA-239C PLUS:

- 5 inch flat-face screen
- DC to 15 mc response
- Verified dual-accuracy calibration
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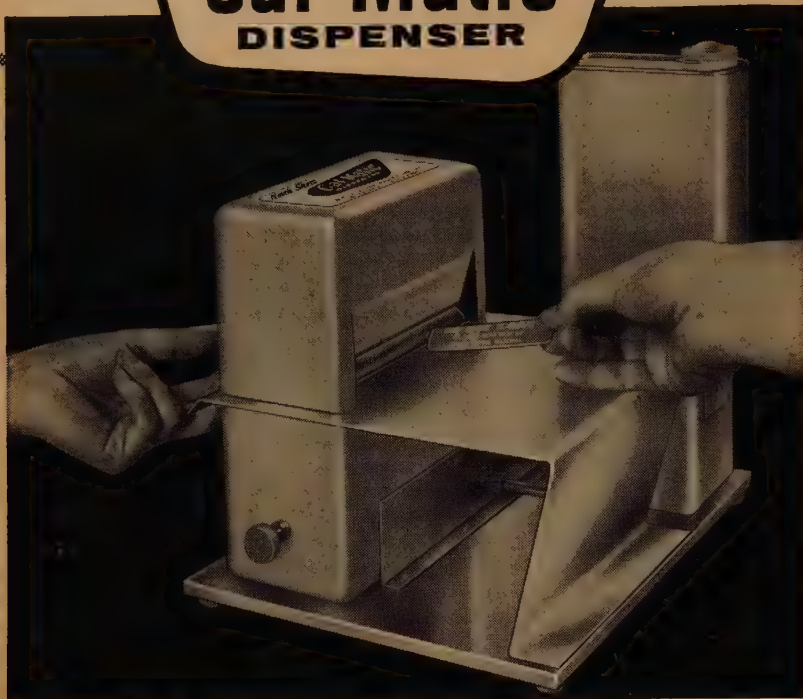
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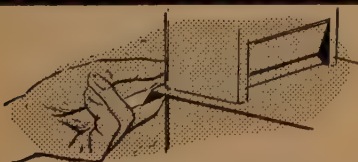
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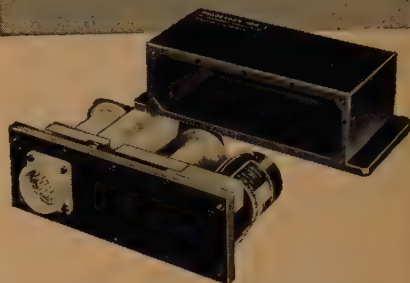
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ACEPOT* Sub-miniature precision wire-wound potentiometers . . .



actual size

This outstanding unit provides extremely high resolution and linearity yet is only 1/2" in size.

Size	1/2" x 1/2"
Weight	0.25 ounce
Resistance Range	10 Ω to 250K $\pm$ 2% std.
Linearity	$\pm$.3%
Temperature	-55° C. to 125° C. **
Winding Angle	325° std. $\geq$ available
Resolution	Extremely high
Torque	.035 oz./in. @ 20° C. ***
Power	2 W for 60° C. rise
Mounting	Threaded bushing, servo, flush, flanged. Ganged up to 6 cups.

The above are standard. Modifications are available. Fully sealed against dust, moisture, humidity. Anti-fungus treated. Meets applicable JAN-MIL specs including shock and vibration.

** X-500 rated for higher temperature range -55° C. to 150° C.
*** Jewel Bearing Acepot torque of .001 ounce/inch

ACEOHM* Sub-miniature, high temperature, humidity-proof trimmers . . .

Specially designed for dependable operation in circuits subject to extreme environmental conditions.

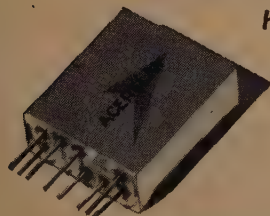


actual size

Size	1 3/8" x 5/16" x 3/8"
Weight	0.2 ounce
Resistance Range	10 Ω to 50K
Usable Potentiometer Range	95-100%
Power Rating	1 W @ 50° C. (flush mount design) derated to 0 W @ 150° C.
Temperature	-55° C. to 150° C.
Resolution	High; to 0.15%
Dielectric Strength	1 minute @ 1M V, DC per JAN-R-19
Load Life	1M hours in accordance with JAN-R-19

35 turn adjustment for precision settings. Excellent shock, vibration, acceleration characteristics. (Meets or exceeds MIL-E-5272A.)

ACERELAY* Sub-miniature, hermetically sealed relays . . .



actual size

Entire relay hermetically sealed — coil assembly hermetically isolated from contact assembly.

* Double pole double throw, break before make, make before break.

Bifurcated contact design assures positive reliability both in power and dry circuit work.

Size	3/4" x 7/8" x 3/8"
Weight	0.75 ounce
Contacts	bifurcated *
Contact rating	3 amp @ 28 V DC 1 amp @ 115V AC
Coil resistance	to 10,000 Ω
Vibration	5-2000 CPS @ 20G
Shock	50G
Life	500,000 operations minimum
Header types	plug in, wire leads, solder hook
Mounting	socket, top studs, side studs, bracket
Temperature	to 125° C.

ACETRIM* Sub-miniature precision wire-wound trimmers . . .

A wide range of resistances is available in this low-cost, space and weight-saving trimmer.

Size	1/2" x 1/2"
Weight	0.25 ounce
Resistance Range	10 Ω to 150K $\pm$ 5% std.
Linearity	$\pm$ 3%
Temperature	-55° C. to 125° C. (to 150° C. on special order)
Winding Angle	325° std. $\geq$ available
Torque	.035 oz./in. @ 20° C.
Power	2 W for 60° C. rise
Mounting	Threaded bushing, printed circuit, flush, flanged, ganged

The above are standard. Modifications are available.

Fully sealed against dust, moisture, humidity. Anti-fungus treated. Meets applicable JAN-MIL specs including shock and vibration.



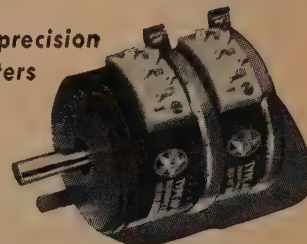
actual size



with tabs for printed circuits

ACEPOT* Nonlinear precision wire-wound potentiometers

Ace designs, plus precision mechanical construction, give highest possible linearity and close conformity. Available in all AIA sizes to meet your unique nonlinear requirements.



	Sine-cosine	Double Sided Square-law
Size	3"	3"
Resistance	20K $\pm$ 5% driving	25K $\pm$ 5% driving
Conformity	1/2 pk-pk	$\pm$ 0.25%
Function angle	360°	$\pm$ 180°
Power	4 watts	3 watts
Mounting	Servo	Servo

Other nonlinear configurations to meet your specific requirements available in prototype and production quantities.

Call or write for information

Complete Fact File and Application Data Sheets available. New developments, and improvements of existing types, are part of a continuous program. Engineering assistance on designs and applications available immediately.

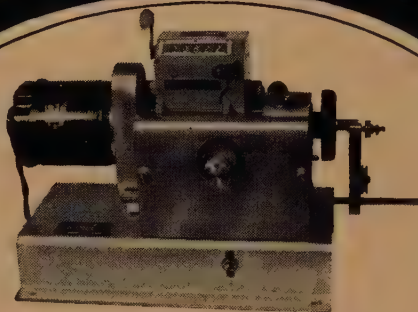
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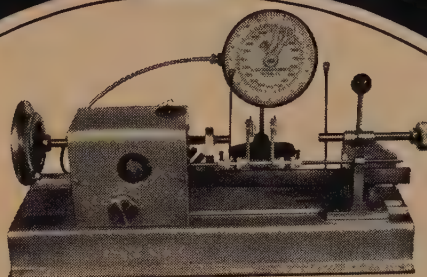
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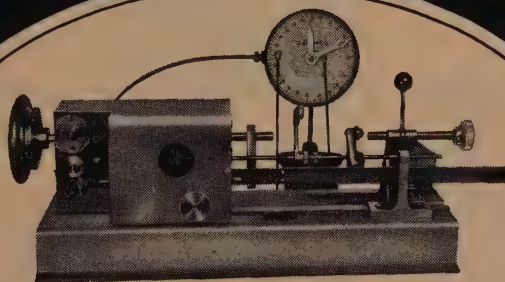
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The Models W and WX are the only commercial machines capable of winding Lattice-Bobbin-Interleaved-Single Layer-Bank-Interwoven coils.



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The perfect machine to cut costs and still provide exact set-up gear ratios for standard production machines. The Model WX and W are equally suitable for high production.

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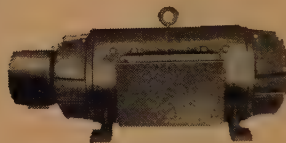
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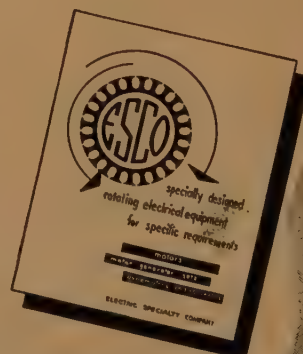
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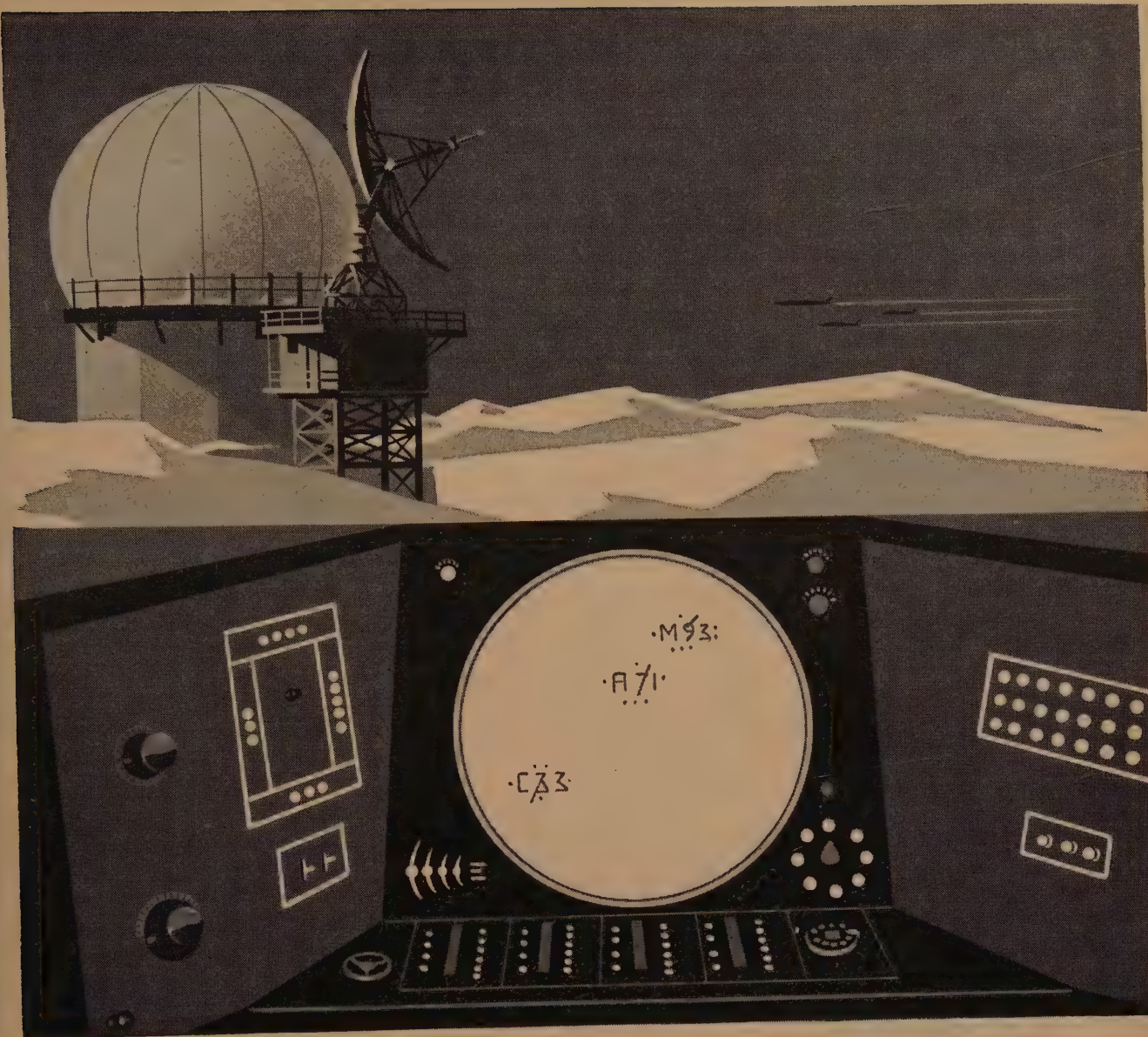
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REON MOLDED COMPOSITION VARIABLE RESISTORS

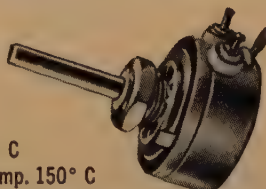
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3 watts at 70° C
Max. oper. temp. 150° C
2 watts—RV4 per Mil-R-94A
Multiple Gangs, Switch
Water sealed units available

1 1/8" OD

MODEL K



1 watt at 70° C
Max. oper. temp. 150° C
1/2 watt—RV5 per Mil-R-94A
Water sealed shaft standard
Smallest 1 watt control available
Multiple and switch controls not available

3/4" OD

MODEL D



1/2" OD

1/2 watt at 70° C
Max. oper. temp. 150° C
1/3 watt—RV6 per Mil-R-94A
Axial lugs and miniature design ideal for printed circuitry
Multiple and switch controls not available

NEW UNIQUE DESIGN SURPASSES T, V, Y CHARACTERISTICS PER MIL-R-94A

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The Reon MOLDED resistance track is a thick homogeneous composition material molded at high temperatures and pressures to insure:

- Long operational life.
- Low noise, becoming less with usage.
- Better performance under extreme environmental conditions.

The Reon MOLDED composition resistor is not a film, paint, ink or carbon.

King Size Track provides three (3) times the resistance area for low current density and long term stability.

The Reon MOLDED Resistance Path Insures:

- 100,000 rotational cycles under 3 watts load.
- Less than 2% change after Mil moisture test.

Perimeter Cooling Offers:

- Higher wattage ratings over similar types.
- Lower hot spot.
- Superior heat dissipation.

Ohmic Range: 50 Ohms to 10 Megohms.

Tolerances: 5%, 10%, 20%.

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Input, 100 microamperes, DC
Output, 10 volts, DC
Gain, to 10,000 per stage
Temperature, to 100° C

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Gain, to 1,000,000 per stage
Linearity, better than 1%
Temperature, to 85° C

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Output, Phase Reversing AC, operates both motor control windings.
AC, operates both motor control windings.
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Construction, these magnetic amplifiers are wound on nickel-steel alloy, tape-wound, toroidal cores for maximum performance. These amplifiers use silicon rectifiers, precision resistors. They are self-contained, designed to operate from 60 and 400 cps. (different models). They are supplied in epoxy-steel encapsulations for high resistance to shock and vibration.

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REON PRECISION WIRE WOUND RESISTORS

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mil style	Reon style	Dimensions Dia.	L	watts
RB09AE	TGB	15/32	7/16	1/8
RB15AE	TJC	9/16	15/32	1/4
RB16AE	TKC	9/16	5/8	1/3
RB17AE	TLC	9/16	1	1/2
RB18AE	TMC	9/16	1-1/4	1/2
RB19AE	TNC	9/16	2	1

TYPICAL SPECIFICATIONS:

- Mil-R-93A (Amend. 4)
- Mil-R-93B (Prop.)
- Mil-R-9444
- RETMA
- Tolerances $\pm 1\%$ to $\pm 0.01\%$
- Full rated load to $+125^{\circ}\text{C}$
- Hot Spot 150°C
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- Matched Resistors, Networks

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Dia.	Reon Series
3/32	TC060
1/8	TC080
5/32	TC100
3/16	TC120
7/32	TC140
1/4	TC20
3/8	TC30
1/2	TC40

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- Rugged



Size
6 1/2 x 6 1/2 x 1 3/4

115 Volts
60 Cycle
10 Watts

Electronic SHORTED TURN INDICATOR

MODEL	MANDREL SIZE	PRICE
101-D	5/32"x7/32"x2"	\$175.00
101-E	7/64"x7/64"x1 3/8"	185.00
101-F	To Order	200.00

Shipping Weight: Approximately 12 Pounds

KARTRON

P. O. BOX 472, 7882 KARTRON STREET
HUNTINGTON BEACH, CALIF. LEHIGH 9-4606

GRAYHILL Switches • Test Clips • Molded Parts

Grayhill Miniature Tap Switches

SERIES 5000

For Commercial Applications

SERIES 12

For Military Applications

Available 1 to 6 decks—2 to 10 contacts per deck.

Shorting (make before break) or Non-shorting (break before make). Switch rotates 360° with 10 positions—stops provided with 9 or less positions.

Bushings, $\frac{1}{4}$ " long— $\frac{3}{8}$ "—32 thread
Diameter of switch 1-1/32"

Rated to break—1 amp., 115 V., AC., non-inductive.

To carry—5 amps., 115 V., AC.



SERIES 24

Positive Detent Action and better feel for precision requirements. Available 1 to 6 decks—2 to 10 contacts per deck.

Shorting (make before break) or Non-shorting (break before make). 360° rotation with 10 positions—stops provided for less than 10 positions.

Bushings, $\frac{1}{4}$ " long— $\frac{3}{8}$ "—32 thread
Diameter of switch 1-1/32"

Rated to break—1 amp., 115 V., AC., non-inductive.

To carry—5 amps., 115 V., AC.



Spring Return Rotary Switch

Similar to Series 24 except with spring return to center position. Provides momentary contact on either side of center position only. Available in 1 to 3 decks, either shorting or non-shorting type.



Series 29 Binding Posts



- Metal parts—Nickel Plated
- Molded parts—Phenolic to MIL-P-14
- Washers—Non-turn "D"
- Cross-hole—Flush
- Integral solder lug
- Color—Red or Black as specified

Grayhill Diode Holder

Provides a tight snap fit within gold-plated phosphor bronze, spring tension clips. Molded phenolic base has non-turn projection.

Clips—.635" center to center. Overall dims.—lgh.—15/16", width—3/8" height—3/8"

No. 17-1—Molded Diode Holder



Grayhill Push Button Switches

SERIES 2000—Snap Action

For Manual Operation

Audible click when actuated
Momentary contact, single pole, single throw type.

O.D.—7/8" dia. x 1-59/64" high
Bushings, 7/16" long—15/32"—32 thread.

Rated—10 amps., 115 V., AC., non-inductive.

1 amp., 115 V., DC.

Rated Life—Approx. 50,000 operations

No. 2201—Normally open

No. 2202—Normally closed



SERIES 4000—Momentary Contact

Momentary contact, single pole, single throw type.

O.D.—51/64" dia. x 1-17/32" high
Bushings, 3/8" long—15/32"—32 thread.

Rated—1/2 amp., 115 V., AC.—non-inductive.

Rated Life—Approx. 800,000 operations.

No. 4001—Normally open

No. 4002—Normally closed



SERIES 23

Miniature Momentary Contact

Momentary contact, single pole, single throw type.

O.D. 1/2" dia. x 1-3/64" high
Bushings, 1/4" long—5/16"—32 thread

Rated—1/4 amp., 115 V., AC., non-inductive.

Rated Life—Approx. 500,000 operations.

No. 23-1—Normally open.



SERIES 30

Midget Silent Action

Sub-Miniature, non-snap, momentary contact, single pole, single throw type.

O.D. 3/8" dia., 63/64" high.

Mounting Bushing 1/4" x 32 thread.

Rated .10 amp., 115 V., AC., non-inductive.

Rated Life—Approx. 300,000 operations.

No. 30-1—Normally open.

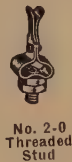


Grayhill Test Clips



SERIES 16

Completely insulated.
Even hinge pin is insulated.
Low contact resistance (approx. .0015 ohm)—.008" silver overlay on contact surfaces
Terminals—silver plated
Finger grips—molded phenolic



No. 2-0 Threaded Stud



No. 2-1 Banana Plug



No. 2-4 Threaded Stud with Insulating Washers



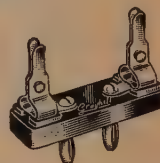
No. 2-6 Pin Plug

SERIES 2

The basic spring clip is available in several styles of mounting as illustrated. Mounted on panel of test equipment, they permit fast lead connections without manual opening and closing of jaws or clamps. Also useful in bread board work and laying out of harnesses.

Grayhill Plug-In Adapter

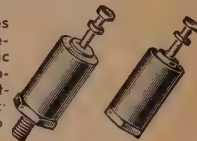
Designed for testing resistors, capacitors, and similar pig-tail type components on standard test equipment. Banana Plug spacing—3/4" centers. No. 2-2 Plug-In Adapter.



Grayhill Stand-Off Insulators

Mica-filled phenolic bodies for low loss at high frequencies, high dielectric strength, low moisture absorption and fungus resistance. Silver plated brass solder terminals. Front o panel length—15/16" Diameter 5/16"

No. 18-1—Female, No. 4—40 Thread
No. 18-2—Male, No. 4—40 Thread



Grayhill Coil Forms



Molded of mica-filled phenolic for low loss at high frequencies, low moisture absorption, high dielectric strength and resistance to fungus growth. Tinned Copper wire leads. Patented anchor posts.

Dimensions—Length—.500" to 1.000"
Dia.—.125" to .250"

Lead wire diameter—.025" to .040"

Grayhill Mating Insulating Washers



To insulate jacks with 3/8" dia. bushings from mounting panel. Back of panel washer has indexing hole fitting non-turn tab of the jack. Shoulder dimensioned for 1/16" min. panel thickness.

No. 21B78-1 Indexing Washer, Natural Mica-filled Phenolic
No. 21B78-2 Indexing Washer, Black Electrical Grade

Grayhill Molded Insulating Washers

Available in sizes for No. 6 to 3/8" screw in natural mica-filled phenolic or black electrical grade insulating material.



Grayhill Printed Circuit Test Jacks

SERIES 31

For use on printed circuits as a test point to feed AF, RF, and Pulse signals, check and feed DC voltages, monitor signals during test, alignment, etc. For use with standard .081"-.0825" phone tip plugs. Rivets to board like an eyelet.

Dims.—1/4" high, rivet dia.—1/14"

No. 31-1—For 1/16" board

No. 31-2—3/32" board

No. 31-3—For 1/8" board



Plastic Sleeves

for Series 31 Test Jacks

Snap-on, plastic insulators lock in place over Grayhill Test Jacks.

Dimensions Dia.—.245" Height—.290"

No. 31B—Plastic Sleeves, available in 8 colors for coding.



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Phone: Fleetwood 4-1040

Test with confidence

WRITE FOR DATA SHEETS ON THE INSTRUMENTS SHOWN... ALL ARE STANDARD PRODUCTION MODELS, AVAILABLE FOR IMMEDIATE DELIVERY FROM STOCK... LET US QUOTE ON YOUR REQUIREMENTS FOR MODIFIED UNITS OR SPECIAL TEST EQUIPMENT.

SLAUGHTER CO.
PIQUA 3, OHIO

High-Voltage Leakage Tester

checks insulation for leakage



... grounds
... arcing

MODEL
122

16 lb. Portable
for lab and
field work

0/2100 V.A.C....0/100/1000 MICROAMPS
CAPACITY COMPENSATION... MEASURES
A.C. RESISTANCE, CAPACITY, AND POWER
FACTOR.

Precision Stroboscope

with high intensity daylight lamp



... stable
... accurate

MODEL
162

Interchangeable
Heads...
0.1% accuracy

FOR SPEED MEASUREMENTS TO 30,000 RPM
FOR MOTION STUDIES... CAN BE SYNCHRO-
NIZED WITH EXTERNAL SIGNALS... CAN BE
TRIGGERED WITH EXTERNAL CONTACTS...
CAN BE COUPLED TO COUNTER, SCOPE, OR
OTHER EQUIPMENT.

SLAUGHTER CO. • PIQUA 3, OHIO

High-Voltage Insulation Tester

with buzzer signal on breakdowns
... grounds
... shorts



MODEL
101

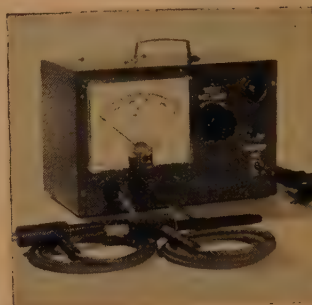
Watch what you
are doing...
not the tester

SIX TEST VOLTAGES... 500 to 2500 V.A.C.
PRICED SO YOU CAN AFFORD TO SPOT A
FEW ALONG YOUR ASSEMBLY LINES.

FOR SAFETY

Adjustable High-Voltage Tester

with buzzer signal on breakdowns
... grounds
... shorts



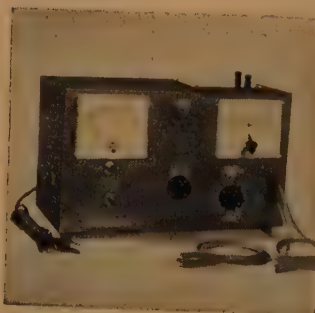
MODEL
106

Voltmeter
shows actual
Test Voltage

ADJUSTABLE VOLTAGES TO 2500 V.A.C. REC-
OMMENDED FOR BREAKDOWN TESTING AT
FINAL ASSEMBLY AND INSPECTION.

High-Voltage Leakage Tester

audibly signals excess leakage
... grounds
... arcing

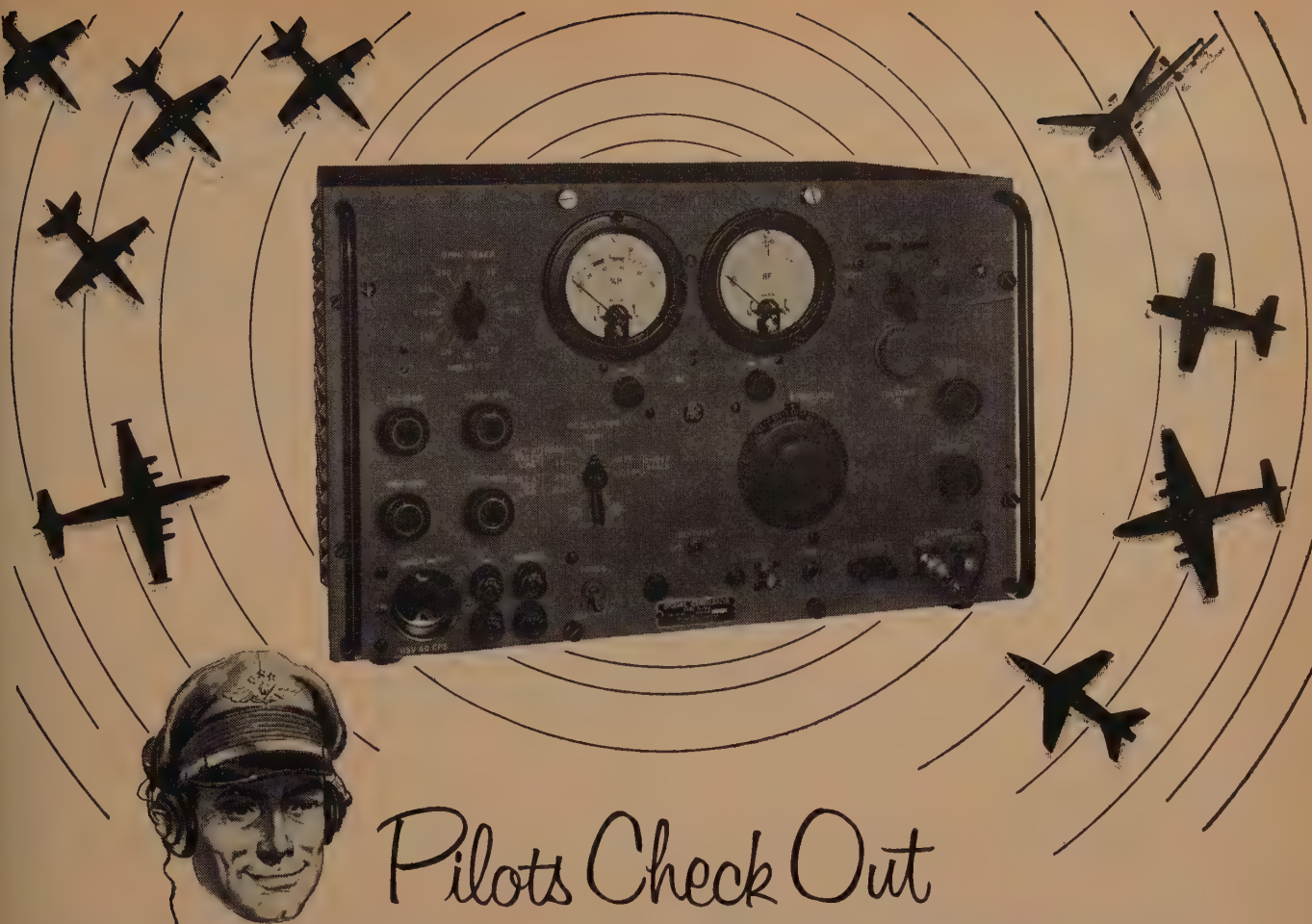


MODEL
103

Measures Leakage
... not capacity
current

TEST VOLTAGE ADJUSTABLE TO 2100 V.A.C.
LEAKAGE LIMIT ADJUSTABLE... 0 TO 5 MA.
DETECTS 20 MICROAMPERE ARCS... CAN-
CELS CHARGING CURRENT CAUSED BY IN-
HERENT CAPACITY. USED AT FINAL INSPEC-
TION FOR BREAKDOWN AND LEAKAGE TESTS.

SLAUGHTER CO. • PIQUA 3, OHIO



Pilots Check Out NAVIGATION RECEIVER ACCURACY

ARC Type H-14A Signal Generator Checks Omni/Localizer Equipment

ARC's H-14A Signal Generator provides a simple and dependable means of checking *omnirange* and *localizer receivers* in aircraft on the field, by sending out on the hangar antenna a continuous test identifying signal that blankets the field. Tuned to this signal, individual pilots or whole squadrons can quickly test their own equipment. Voice can be transmitted simultaneously with signal. The instrument will check 24 omni courses, omni course sensitivity, operation of TO-FROM meter and flag-alarms, left-center-right on 90/150 cps localizer, receiver frequency calibration, reciprocal course accuracy, and receiver output. The H-14A is also widely used for

making quantitative measurements on the bench during receiver maintenance. Input power is 160 watts, 115 volts 60 cps.

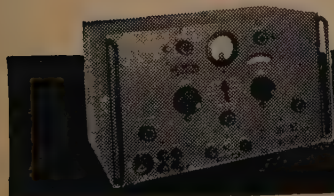
The H-16A Standard Course Checker measures the accuracy of the indicated omni course in ARC's H-14A or other omni signal generator to better than $\frac{1}{2}$ degree. It features a built-in method of checking its own precision.

ARC's Type H-12 Signal Generator (900-2100 mc) is equal to military TS-419 U, and provides a reliable source of CW or pulsed rf. Internal circuits provide control of width, rate and delay of internally-generated pulses. Complete specifications on request.

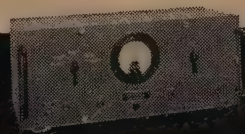
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Type H-12
UHF Signal Generator



Type H-16
Standard Course Checker



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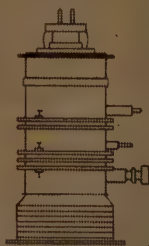
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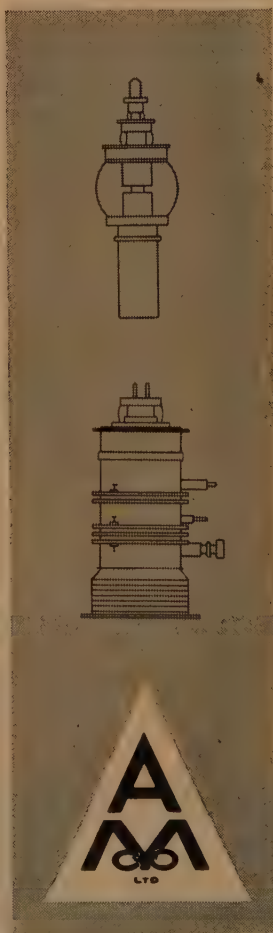
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Other members of the AMCO non-ferrous family are Bismuth, Cadmium, Germanium, Gold and Gold Alloys, Lead, Palladium, Platinum, Selenium, Silver, Tellurium, Tin, Zinc, Metal Powders, and Solder.



DAGE

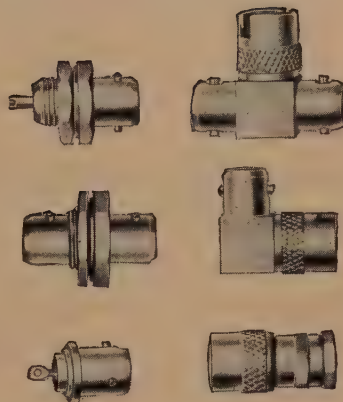
Coaxial Cable RF CONNECTORS

meet all your circuit design,
mounting and environmental requirements

DM series

DESIGNED FOR SUB-MINIATURE APPLICATIONS

- Only half the size of standard BNCs
- Twelve polarity groups—two and three lug
- Vibration proof bayonet locking (MIL-C-5015)
- Teflon insulators permit use over wide temperature range with low electric loss
- .002" silver plating and gold flash affords excellent corrosion resistance



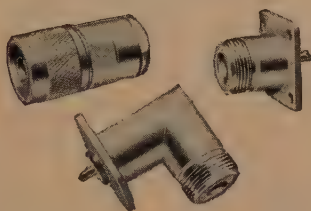
SHOWN ACTUAL SIZE

BNC series



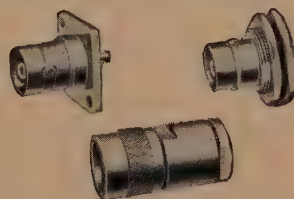
BNC connectors are designed for use with miniature RF cables. Small, lightweight and weatherproof, all have the quick-disconnect bayonet locking feature. Teflon insulators assure low electric loss at high temperatures. Manufactured to MIL-C-3608 specs. Frequency limit: 10,000 mc.

N series



Low voltage, constant impedance connectors for use with medium sized cables. Provide excellent VSWR at frequencies up to 10,000 mc. Available in both weatherproof and non-weatherproof types. Screw type coupling ring locking. Maximum voltage: 500v. Meet MIL-C-71A specs.

C series



A newly developed line of weatherproof connectors for use with medium sized RF cables. Features several design improvements over other connectors, including improved clamping mechanism for excellent cable grip, and a silicone rubber gasket for moisture-proof sealing.

Write for your free copy of Catalog No. 301. It contains complete engineering data on all Dage RF Coaxial Cable Connectors. Remember, too, that Dage engineers will be glad to help on any connector problem.



ELECTRIC COMPANY, INC.
67 North Second St. • Beech Grove, Ind.



Do you need 50,000
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wire markers—quick?

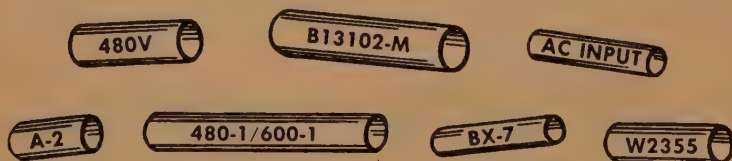
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Since we developed the COLD *Indeli-Dent*[®] process of heatless marking, we can supply as many markers at short notice, as you might conceivably need for your wire marking requirements. Usually we can give 24 to 48 hour service!

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Ask for samples of our *Indeli-Dent*[®] process markers. Subject them to any durability test — then compare results with the markers you now use! You'll discover why so many engineers specify Markwik permanent *Indeli-Dent*[®] code markers throughout every piece of equipment they design.

- Conventional hot process stamping also available •

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SINGLE "in-the-line" ATTENUATOR PADS and 50 ohm COAXIAL TERMINATIONS



PROTECTED UNDER STODDART PATENTS

This new group of pads and terminations features the popular Types C and N connectors, and permits any conceivable combination of the two styles.



PROTECTED UNDER STODDART PATENTS

six-position TURRET ATTENUATOR

- Frequency Range: dc to 3000 mc.
- Characteristic Impedance: 50 ohms.
- Available Attenuation: Any value from 1 db to 60 db.
- Accuracy: ± 0.5 db.
- Power Rating: One watt sine wave power dissipation.

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APPROVAL DATA

STODDART & MILITARY TYPE	FREQUENCY	MIL-I-16910 (Ships)	MIL-I-6181	S.A.E.	A.S.A.	C.I.S.P.R.	
NM-40A (AN/URM-41)	30cps-15Kc	CLASS '1'	Not Req'd	Not Req'd	Not Req'd	Not Req'd	*MIL-I-6181C (Proposed) **Can be supplied to C.I.S.P.R. Recommendations S.A.E. (Society of Automotive Engineers) A.S.A. (American Standards Association) C.I.S.P.R. (Comite International Special des Perturbations Radioelectriques) (International Special Committee on Radio Interference)
NM-10A (AN/URM-6B)	14Kc-250Kc	CLASS '1'	Not Req'd	Not Req'd	C63.2 (Proposed)	Not Req'd	
NM-20B (AN/PRM-1A)	150Kc-25Mc	CLASS '1'	CLASS '1' *CATEGORY 'A'	Not Req'd	C63.2 (Proposed)	**	
NM-30A (AN/URM-47)	20Mc-400Mc	CLASS '1'	CLASS '1' *CATEGORY 'A'	APPROVED	C63.3 (Proposed)	**	
NM-50A (AN/URM-17)	375Mc-1000Mc	CLASS '1'	CLASS '1' *CATEGORY 'A'	Not Req'd	C63.3 (Proposed)	Not Req'd	

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 5 different frequency ranges, at—
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 6644 Santa Monica Blvd., Hollywood 38, California
 Hollywood 4-9294

PIPELINE TO PRECISION



new!

The Model WWVC STANDARD FREQUENCY COMPARATOR is a new instrument incorporating a highly sensitive crystal controlled radio receiver for utilizing the transmission of the National Bureau of Standards radio stations WWV and WWVH and is now available for precise audio and radio frequency standards work as well as accurate time interval measurements.

The model WWVC STANDARD FREQUENCY COMPARATOR is available in cabinet or for rack mounting using a 5/4" panel.

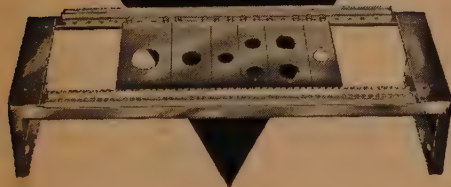
NEW—Model SR-7 WWV RECEIVER

This receiver is the dual conversion type. Dimensions: 3-15/16" x 11" x 8 1/2" deep. Available in upright or vertical models, or as rack mounted model. Noise limiter, antenna trimmer and provision for an oscilloscope or head phone are incorporated.

NEW—Model AK-8 ANTENNA KIT

This special antenna is designed to provide optimum response to signals from WWV and WWVH on 2.5, 5, 10, 15 and 20 mc. Includes modification kit for receiver with all wire, 50' of coaxial cable and suitable fittings to provide outstanding performance. Antenna is completely assembled; needs only one support for satisfactory operation.

CHANGEABLE CHASSIS



SPEED-CHASSIS

The Speed-Chassis is a flexible breadboard assembly with interchangeable socket arrangements which can be mounted on a relay rack if desired. Shield cover and panel are available to make successful breadboard assemblies both permanent and neat.

The NEW Half-Size SPEED-CHASSIS accommodates small breadboard where additional length of the full-size model is not needed. Stacking and place arrangements of either unit or units in combination are extremely varied. Both Chassis models are preassembled; controls may be mounted on either end.

Send for specifications, prices and delivery

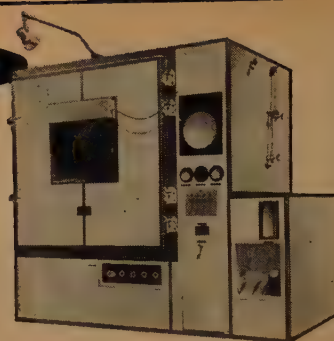


SPECIFIC PRODUCTS

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MIL-E-5272
and others.

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FRONT OPENING
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Write for
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- Fungus Testing - Cold - Heat - Altitude - Humidity

PESCHEL HIGH VOLTAGE TEST EQUIPMENT



SERIES H
HIPOT TESTER



MODEL CT-O
CORONA TEST SET

Complete Series of Hipot Testers; HV Test Sets, AC, DC and AC/DC; non-destructive Sensitive Hipot testers; Corona Test Sets; Continuous Insulation Testers; Insulation Tester and Fault Indicator; Motorized Output Control Panel; Audiotone Continuity/Leakage Tester; Electronic Rheostats; High Potential Test Sticks; DC High Potential Test and Cable Fault Sets; Universal Power Supplies.

MEETS TESTING STANDARDS FOR MIL, JAN, ASTM and IPCEA. Write today for Catalog No. 19.

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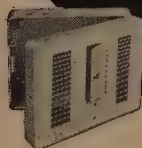


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 BUILDS IT
 BETTER!



FILTERS NETWORKS

TOROIDAL WAVE FILTERS

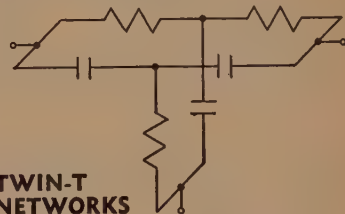
Hermetically sealed LC filters with stable toroidal inductors. Low, high, band-pass models available over wide impedance and frequency ranges. Stud-mounting and plug-ins. Stock and special designs such as interstage filters. Write today, orders filled promptly, competitive prices. Ask for LC bulletins.



ACTIVE FILTERS

Plug-in amplifier-feed-back network pairs for use as filters or band-pass amplifiers. Widely used where LC filter sections are impractical.

Available with
 Tuned circuit response Q to 40, center frequency 1 cps to 500 cps
 Bandpass response with center frequency 5 to 500 cps
 Ask for Bulletin 212, 572



TWIN-T NETWORKS

For harmonic rejection, low-pass filtering, feedback circuits. Hermetically sealed, stable, plug-in or stud mounted. Null frequencies 1 cps to 50 kc, wide range of impedance levels. Quick delivery, ask for bulletin 500.

Complete engineering service for special filter and network designs. Instrumentation and control problems invited. Manufacturing facilities for prototypes or a thousand units. Fast delivery at competitive prices. Inquiries answered promptly. Let us put you on our mailing list for bulletins and our "Network Notes."

White

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 BOX 3000 • AUSTIN 17, TEXAS

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Select **POLYPENCO®** Industrial Plastics

Polypenco products and engineering service are your answer to new developments, improved quality, lower costs.

Industrial plastics with distinctive quality and performance:

POLYPENCO NYLON STOCK SHAPES

Rod • Strip • Tubing • Tubular bar • Hexagonal bar • Plate

Highest quality nylon available from stock for fast, economical machining on standard metalworking equipment, insuring close production control. Wide ranges of sizes immediately available from nationwide warehouse stock.

POLYPENCO TEFLON* STOCK SHAPES

Rod • Tubing • Tubular bar • Sheet

Easily machinable stock shapes in wide variety of sizes with uniform, controlled density and maximum dimensional stability.

POLYPENCO TEFLON TAPE AND SPAGHETTI TUBING

Dielectric materials with superior performance properties. Tape is supplied from stock in thicknesses of .001" to 0.125" in widths up to 12". Spaghetti tubing is available in AWG wire sizes #30 to #0. Both available in 10 fade-proof colors.

FERROTRON® Ferromagnetic Materials

A superior powdered iron-filled plastic material for electromagnetic design. Available in rigid cores and flexible rod and tape.

POLYPENCO Q-200.5 (cross-linked polystyrene)

UHF insulating material with outstanding electrical properties for electronic, communication and allied applications. Available in rod and plate.

Nation-wide stocking and service points assure prompt delivery of your order. Let Polymer's Technical Service Department help on your design problems. Write today for further information.

THE POLYMER CORPORATION OF PENNSYLVANIA

Reading, Pennsylvania

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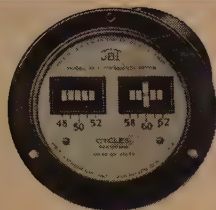


JBT

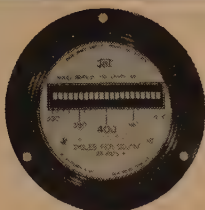
REED FREQUENCY METERS • ELAPSED TIME METERS TOGGLE, LEVER and ROTARY SWITCHES of Instrument and Test Equipment Quality for THE ELECTRONIC INDUSTRY

JBT

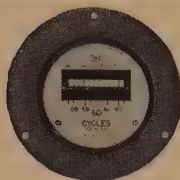
TOGGLE SWITCHES, AN, JAN, or MIL



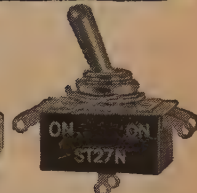
Model 30-F
Dual Range, Double Window



Model 36-FX-21
21-Reed Meter in 3 1/2" Case



Model 34-FHXX
9-Reed in 3 1/2" Sealed Case



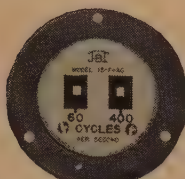
J-B-T now manufactures over 100 models of toggle switches, designed for exceptional reliability, as in JAN-S-23 and Ordnance Standards DDAX. Variations with bushing seal are made at additional cost for MIL-S-6745 specialized AN Air Force requirements. Other types are being planned for pending MIL-S-3950. Improved enclosed designs are supplied on all models—there are no unused holes.

ST40, 42, 52 series—Solid coin silver contacts and racker arms, unique to J-B-T, add overload protection and keep contact resistance under .005 ohms. Nominal ratings 20 amp at 125 VAC, 10 amp, 250 VAC. See Bulletin TS-48.

ST12, 13, 16, 17, 22, 23, 26, 27 series—Nominally rated 6 amp at 125 VAC, 3 amp, 250 VAC; threaded bushings 3/4" or 1/4" long. Current carrying parts heavily silver plated. See Bulletin TS-58.



Model 41-FX-42
300—500 cycles and
380—420 cycles, 4" case.



Model 15-FHAC
2-Reed in 1 1/2" Sealed Case



Model 33-FP-9M
Portable, Metal Case
TS-328 A/U (400 cy. type) Shown

VIBRATING REED FREQUENCY METERS

Meters illustrated are typical panel mounting or portable—for use where constant or known frequency is important to efficient operation of equipment.

- **Permanently Accurate** within $\pm 0.3\%$ or better at reference temperature, depending on the model. This accuracy is not affected by poor wave form, external magnetic disturbances, or voltage fluctuations.
- **Size and Type for Every Service.** Made in a wide variety of portable and panel case styles, reed groupings and frequency ranges from 12 to 650 cycles and above; 100-130 volts furnished unless otherwise specified.
- **Rugged Construction** of simplified, patented design, with no moving parts to wear out or get out of calibration. Ideal for field and mobile applications.
- **Suitable for Electronic Circuits** because of relatively low power consumption and J-B-T reeds with high Q and sharp, immediate response.

3 1/2" and 2 1/2" SEALED Types

3 1/2 inch FHXX Meters sealed, glass-to-metal construction with solder terminals, meet or exceed the sealing and electrical requirements of JAN-I-6 and MIL-M-6A including the 3000 volt breakdown, and use the front mounting dimensions specified. Max. barrel diameter, 2 1/16"; 2 7/8" overall depth behind flange. While not regularly stocked, these meters are in volume production. New 2 1/2" meters Model 21-FHXX available on special order.

1 1/2" SEALED Types

Model 15-FHAC (illustrated above). 60 and 400 cycles, 2 reeds, 8-10 volts, for cathode follower circuit. Widely used on audio oscillators to standardize output. Meets intent JAN-I-6, MIL-M-6A and amendments on sealed meters. Barrel, 1 1/2" diameter; detachable flange, 2.094" diameter; solder terminals.

Model 15-FH Series (not illustrated) — Same case, sealed, 5 reeds, 58-62 cycles, 100-130 volts, or 390-410 cycles, 100-130 volts. Variations such as 6 reeds or 25 cycles available on special order.

ASK FOR CATALOG 657

ELAPSED TIME METERS

For Maintenance, Tube Life Data, and Operating Time Records—on Motor Generators, Transmitters, Receivers, Rectifiers, Test Set-ups, etc. Model 31-EX (illustrated) also known as running-time or total time meter, registers in 1/10 hours to 9,999.9 hours, then automatically resets. Normally stocked for 60 cycles, 110-130 volts. 3 1/2" standard meter mounting. Variations such as 50 cycles; 230 volts; 0-99,999 hours; 3" rectangular case; and readings in minutes available on special order.



SEALED ELAPSED TIME METERS

Model 31-EHXX—Fully sealed meter, reading 0-9,999.9 hours, same as Model 31-EX above. Glass-to-metal construction, solder terminals, and 3 1/2" detachable flange, all match XX metal frequency meter case. 1000 volt breakdown.

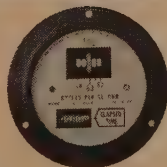
Model 33-EHXX — Operates on 400 cycles, 110-125 volts, to read 0-9,999.9 hours in 1/10 hour steps. It is presently made only in 3 1/2" flange sealed metal case, 2 3/4" diameter, 4" deep behind panel. 1000 volt breakdown.

Model 21-EHXX—New. 2 1/2" flange, sealed, full size counter.

FREQUENCY — TIME METERS

Combination Reed-Type Frequency — Elapsed Time Meters—One Meter Does the Work of Two.

Model 31-FE (illustrated) pioneered by J-B-T, saves panel space and cost, and encourages periodic maintenance; 3 1/4" flange, metal case, 4 1/32" overall depth; standard. 3 1/2" case known as 31-FEX-1 supplied on custom orders. 5 reeds, 60 cycle range, standard; 7, 9, 11 reeds or 50 cycle range on special order.

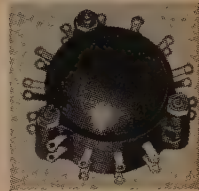


DISTRIBUTOR SERVICE

Standard J-B-T items are available through authorized electronics parts distributors.

ROTARY SWITCHES

Shorting and Non-Shorting... 14 or 20 Positions... 1 to 6 Decks (more on special order)... All moving contacts enclosed — eliminates dirt and corrosion... sturdy construction with 3-post deck suspension, double-grip collector arms, and rectangular drive shaft through decks for precision indexing...



MOLDED

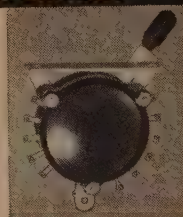
test results available covering certain procedures of MIL-E-5272 A... interchangeable, electrically and mechanically with J-B-T Series SS-14 and 20 position Laminated Switches. Carrying capacity (not make-and-break): 1 amp.; maximum momentary, normal 5 amp.; maximum voltage between contacts and ground, 1000 volts R.M.S.; between decks and ground, 2000 volts R.M.S. Average contact resistance 0.007 ohms or less. Also available in 6-pole per deck double throw construction. Non-shorting (break before make) and shorting (make before break). Bonded construction is available on special order as MS-14R and MS-20R Types. Provides permanent moisture-proof bond between decks, and strong mechanical support for contacts. For dependable performance in quality test equipment, instruments, inspection setups and avionics — two compact types. 14 pos. (2" dia.) or 20 pos. (2 3/32" dia.) one to six decks. Model SS-14-2 shown.

LAMINATED



LEVER ACTION SWITCHES

Model MS-20-115A-1 (illustrated) provides 5 live positions, 2 circuits per deck in molded body. Mounting to Print SK-64. Single deck types use same top quality parts as laminated SS-14 switches. For ganged lever series, SSG types, in 3, 4, or 5 positions, 2-10 decks. See Print SK-74.



ASK FOR CATALOG 657

J-B-T INSTRUMENTS, INC.

JBT

NEW HAVEN 8, CONN.



CRYSTALS

OVENS

CRYSTAL FILTERS

PACKAGED OSCILLATORS

CRYSTALS Bulova crystals are available for any frequency from 4 KC through 100 mc. Featured are the ST "shock mounted" series from 16 KC through 500 KC. Crystals are available to meet all current military specifications.

OVENS A complete line of ovens from the multi-purpose AM-100 to the specific application BHC series. Temperature stabilization can be held as close as .1°C. Crystal ovens are available which will hold up to 20 units in the subminiature series.

CRYSTAL FILTERS Bulova filters can be supplied with center frequencies from 10 KC through 20 mc. Bandwidths of .01% to 8% of center frequency. Slope factors 60/6. Ratio of bandwidth at 60 db to bandwidth of 6 db as steep as 1.4/1 with single sideband filters having greater slope.

PACKAGED OSCILLATORS A complete range of frequencies from 8 KC through 70 mc is available as tube type or transistorized oscillators. The Bulova OS-1 (picture above) will maintain an accuracy of .0012% over -55°C. to +80°C. ambient. This tube type oscillator is available from 180 KC through 50 mc.

Bulova "custom engineering" services are available to fulfill your every frequency control requirement.



BULOVA

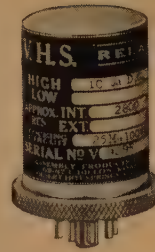
watch company

Electronics Division
Woodside 77, N. Y.

Write Dept. DA-776
For Full
Information & Prices

VHS METER-RELAY

(Very High Sensitivity)



Model 266
10 Ua DC
2800 ohms
Gasket-
sealed
1 3/4" x 2 1/4"



Model 126
124V. AC
250,000 ohms
Solder-
sealed
1 1/4" x 1 1/8"

The VHS is a D'Arsonval moving coil relay, internally shock-mounted. Its operation is similar to that of indicating meter-relays.

Connections: 9-pin octal style.

Weight: 4 ounces.

Sensitivity: From 0.2 Ua to 10 Amp., 0.1 Mv to 500 volts. AC relays are rectifier type.

Accuracy: Trip point to 1% (depends on sensitivity). Differential and repeatability 1%.

Shock and Vibration: Operates at 10 G or more, 5 to 55 cycles. Non-operating, withstands 10 G or more, 5 to 2,000 cycles; shocks of 10 G or more.

Contacts: SPST or SPDT, 5-25 Ma DC. Other ratings to 1/2 Amp. AC. A locking coil gives high pressure and chatter-free contact.

Price: \$20 to \$80. Ask for Bulletin 104-A.

VHS COMPACTS



Cat. 2303 AH \$148.50 complete

Rugged, small, complete controls. They use integral VHS meter-relays as the controlling "heart", or may use external meter-relays where indication is needed.

Accuracy: Trip point to 1% (depends on sensitivity). Differential and repeatability 1%.

Load Switch: 5 amperes, 125 volts. SPDT; make or break with increasing signal (hi), decreasing signal (lo), or both (double).

Input: From 0.2 Ua to 10 Amp., 0.1 Mv to 500 Volts. AC relays are rectifier type.

Power Required: 115/230 Volts, 50/400 cycles. DC models available.

Connections: 9 pin plug-in (octal type).

Mounting: Plug-in.

Case: 1 3/4" x 4 1/4" x 4 3/4", steel, dustproof. Hermetic sealing optional.



Send For Catalog:

40-PAGE CATALOG 4-C
DESCRIBES COMPLETE
PRODUCT LINE—includes
circuitry, response time,
prices, discounts, etc.

**ASSEMBLY
PRODUCTS, INC.**

INDICATING PYROMETERS

TWENTY-ONE RANGES FOR TEMPERATURES
FROM -400°F. TO $+3000^{\circ}\text{F.}$
ACCURACY 2% OF FULL SCALE.



Prices
from
**\$20.25 to
\$51.65**

Model 461:
4 1/2" black
bakelite
case,
0/750° F.,
with
mirror
scale.

6 other
sizes and
case styles.

Medium resistance (4 ohms per millivolt) thermocouple millivoltmeter. Compensated for cold junction and copper error.

Available with 1% accuracy. Can be thermistor compensated for ambient changes. Some styles supplied with mirror scales.

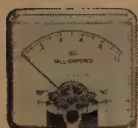


Model B Portable Pyrometers

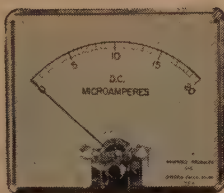
Price: **\$34.90 to \$55.25**

Includes thermocouple with 5' lead and oak carrying case.

API PANEL METERS



Model 261
0-1Ma DC **\$12.65**



Model 451
0-20 Ua DC **\$30.25**

D'Arsonval movements, Alnico magnets, tubing or knife-edge pointers. AC meters are rectifier type. DC accuracy, 2%; AC 3%. Better accuracies available. Zero right, zero center meters or up to two-thirds of range suppressed. AC and DC meters in multiple ranges. Special dials in colors, black face, your name, etc. Mirror scales.

STYLES: PYROMETERS & API PANEL METERS

Ruggedized-Sealed

2 1/2, 3 1/2, 4 1/2-inch round metal case, sealed zero adjust, shock-mounted movement.

Black Bakelite

2 1/2", round or square, 3 1/2" round or square, 4 1/2" rectangular. (Other colors and illumination in 4 1/2" size.)

Clear Plastic

2 1/2", 3 3/4" and 4 1/2" rectangular.

CONTROLS

SIMPLYTROL AUTOMATIC TEMPERATURE
CONTROL, THERMOCOUPLE OR
THERMISTOR-ACTUATED

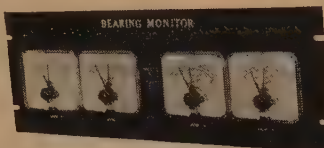


Cat. 4535 0-1000°F. 1/C
Approx. 10 x 6 x 7" **\$135**

On-off control or automatic shut-down for furnaces, ovens, kilns, etc.

Load relay is SPDT 5 amps. Optional heavy duty relays to 40 amps. Indicating meter-relay is medium high resistance and has bimetal cold junction compensation.

No leveling required—just connect thermocouple, connect load, and plug in to 115 or 230 volt AC line.



BEARING TEMPERATURE MONITOR

Cat. No. 3590-4 **\$355.00**

Meter-relays, operating directly from thermocouples, give immediate warning or shut-down upon temperature rise in bearings (or other danger points). A number of points can be monitored independently and continuously.

VERSATROL AUTOMATIC CONTROLS

For any variable that can be measured electrically. Adjustable control points. Automatic operation.



Cat. 3581

Versatrol High Limit
Automatic with
451-C Meter-Relay
(0-20 Ua DC)

Approx. 10 x 6 x 7"
Price **\$154.25**

Versatrol consists of a meter-relay and all components for a complete control assembly. Any range or type of meter-relay can be supplied in a Versatrol.

They can be calibrated in any function that can be converted to electrical units. Load relays have 5 ampere contacts. Control point is adjustable from the front.

Control can be high limit (on an increase in signal), low limit (on a decrease in signal), or double (control action on rise or fall of signal).

Versatrol can be used for continuous on-off control or for shut-down or alarm. Available in wall cabinet, panel mount, "U-Mount-It" etc.



SLAVE RELAYS

Low operating current, snap action contacts rated 5 amps, 125 volts. Designed for use with meter-relays. SPDT, DPDT, 3PDT, or 4PDT. Supplied open or in plug-in cans. Prices \$6 to **\$40.00.**

METER-RELAYS

Indicating meters with built-in locking contacts for control or alarm. Trip point adjustable.



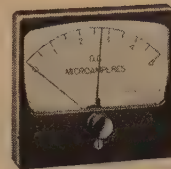
Model 255-C

High limit,
Ruggedized-Sealed
0-100 Ua DC
\$46.00

Styles:

RUGGEDIZED-SEALED metal cases are 2 1/2, 3 1/2, and 4 1/2" round, shock-mounted movement, gasket-sealed.

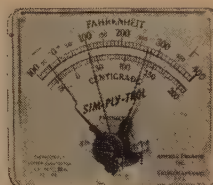
BLACK BAKELITE . . . glass front, 4 1/2" rectangular case. Other colors on special order. CLEAR PLASTIC 2 1/2, 3 3/4, & 4 1/2" rectangular.



Model 461-C Bakelite
High Limit
0-5 Ua DC
\$107.50

Ranges:

0-5 Microamps to 0-50 Amps. 0-5 Millivolts to 0-500 volts, AC or DC. (Minimum AC voltage range 0-250 Mv.) Thermocouple temperature ranges cover from -400 to $+3000^{\circ}\text{F.}$



Model 451-C
Double Contact-100
to $+400^{\circ}\text{F.}$ **\$64.00**

MIL Specs:

Ruggedized - sealed meter-relays will meet these specs: Shock: 1 and 3-foot drops, 400 lb. hammer, 3 planes. Vibration: MIL-M-10304A.

Salt Spray: QQ-M-151A. Temp.: $-30^{\circ}/+70^{\circ}\text{C.}$ Sealing: MIL-M-6A.

Accuracy:

Point of contact: 1/4% to 1%.

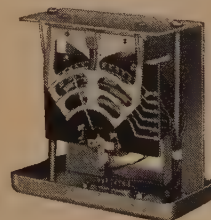
Indicating: $\pm 2\%$ of full scale at any point of dial. Can be 1%.

Contacts:

Rating: Standard is 5-25 milliamperes at 75-125 volts DC. Optional ratings to 250 Ma, 6 to 250 volts, DC.

Arrangement: High Limit (makes on increase of signal), Low Limit (makes on decrease of signal), Double (both high and low contacts)

Life: 10 to 20 million operations.



LIAD MULTI-CONTACT METER-RELAY

The LIAD consists of a D'Arsonval meter movement with one or several contacts carried on the moving pointer, a printed circuit scale (95 angular degrees), and a device for gripping the pointer and its contacts to the scale contact bars.

The unique combination of contact closures resulting from this gripping tells the level of the signal—and can be transmitted or used for telemetering; automatic production testing or grading; maximum value reading; simple quantitative read-out, etc.

Standard LIAD with 10 segment scale band, one milli-ampere sensitivity, 12 volt read-out coil. Price **\$100.00**

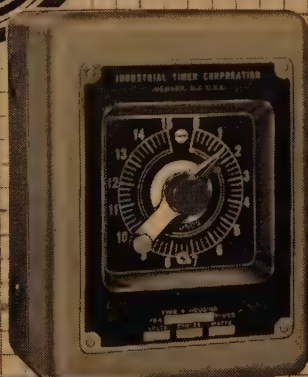
ASSEMBLY PRODUCTS, INC.

CHESTERLAND 6, OHIO. Phone: (Cleveland, O.) Hamilton 3-4436 or PO Box XX, Palm Springs 6, Calif., Phone DHS 4-3133 & 4-2453

Need a "SPECIAL" TIMER ...need a "STANDARD"?



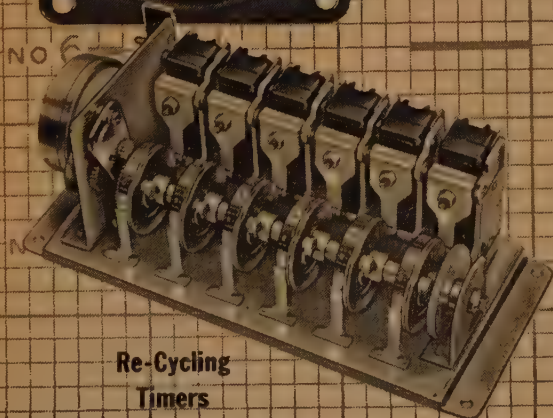
Time
Delay
Timers



Interval
Timers



Running
Time
Meters



Re-Cycling
Timers

Here's why WE can give you the fastest service

When you want a timer, you want one that fits your needs 100% — and you want it fast. Get in touch with Industrial and you'll get both. Because:

In our 20 years of experience, we have developed over a thousand combinations from our 17 basic types, to meet the widely varying needs of our customers. Therefore — many jobs that would seem to require a "special" timer are in fact a "standard" timer with us. Here is one tremendous saving of time for you.

When you do need a special timer, this same wealth of experience goes to work for you at once to design it. Our Engineering Department not only originates new designs, but also develops modifications for that purpose. That's why requests for special timers can be filled without delay.

Each method — designing for a standard timer or for a special timer — has its advantages. Designing for an already available timer means lower costs, faster service, simplified replacements.

Designing for a special timer has its advantages too. It means you'll fulfill your needs 100% — no need to limit your designing horizons. Either way — standard or special — you'll get the timer you want most promptly from Industrial.

Or perhaps you need quick service on timers for automatic controls. Here too Industrial Timer is your first source of supply. For in this field Industrial has a big head start. True, each automatic control job is a bit different from the rest. But the record shows that our years of timer experience has given us the special knowledge it takes to give you the right answers in near-record time.

So, for the utmost in all-round timer service, it's Industrial that offers you this outstanding combination: deliveries "Immediate on Standards . . . First on Specials." Plus the experience of one of the foremost group of timer engineers in the nation.

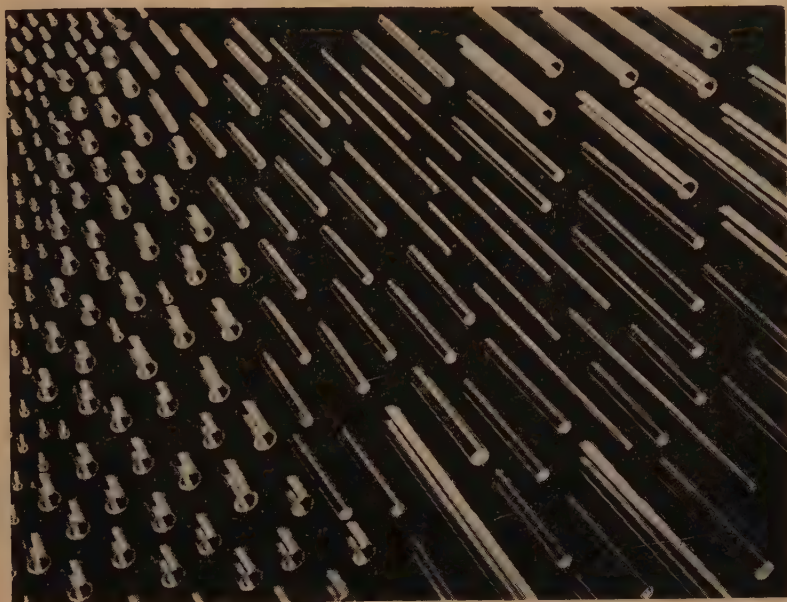
Timers that Control
the Pulse Beat of Industry



INDUSTRIAL TIMER CORPORATION

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PRECISION GLASS PARTS FOR THE ELECTRONICS INDUSTRY



Precision Finished, Metal and Abrasive-Free



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(Metal and Abrasive-free)

TYPICAL APPLICATIONS

Exhaust tubing
Envelopes
Spacers
Rods
Cases
Sleeves
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Pellets
Insulators
Rings Stems

FOR USE IN

Transistors
Diodes
Tubes
Glass to Metal Seals
Fuses
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Hermetic Seals
Miniaturization
Automatic Feeding
Automatic Processing



Precision Finish
Glass Rods
(Metal and Abrasive-free)

HAMILTON is your best source for metal and abrasive-free precision, hard and soft glass parts. Featuring beveled edges with tolerances (at production rates) to .001". Certified reject rates as low as 3 per 100,000 pieces.

You'll find our precision, reliability and price to be the best. Send prints for quotation or request samples from:

HAMILTON ELECTRONICS CORP.

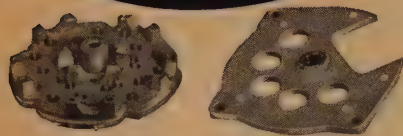
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PRospect 6-2110

Bath, N. Y.



For Your MOST Exacting Insulating Problems



MYKROY—Glass Bonded Mica (to 1000°F.)

This material possesses the unsurpassed combination of valuable properties for insulation in high frequency equipment—high dielectric and mechanical strength, extraordinary resistance to high temperatures and arcs, with ease of machining, molding into intricate shapes and bonding to metals. It is also impervious to water, oil and gases. Available in two types:

MYKROY 38A—Natural Mica combined with special glass; operating temperature to 800°F.; in sheets, rods, fabricated parts and moldings.

MYKROY 38S—Synthetic Mica with high temperature glass—heat factor to 1000°F. with high wet electrical properties and low power factor. Available in sheets or as powdered mica (Thermica) used as a filler for resins.

ALCEROY—Aluminum Oxide (to 3100°F.)

Provides exceptional insulation properties and continuous high heat resistance at very high frequencies. Available in fabricated parts to your specifications in two types:

ALCEROY #8—Withstands temperatures to 2550°F.; 85% pure aluminum oxide.

ALCEROY #9—Withstands temperatures to 3100°F.; 97% pure aluminum oxide.

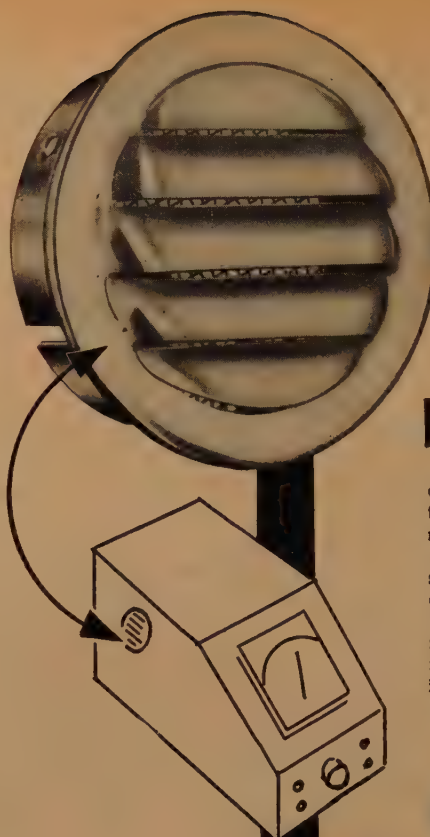
Special moldings and fabrications of **TEFLON** and **KEL-F** also available.

For Your Special Gasketing Needs—

FLEXON—Compressible Gasketing Material

This exclusive material, made of specially processed Teflon, is relatively soft providing a superior seal for irregular contours or rough surfaces where the regular Teflon surface is too hard. Available in sheets or fabricated parts.

Send us your sketch for an estimate. For descriptive literature write to Dept. J-7.



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				LENGTH	DIA.	
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VC12-32	12	32	45	6 1/2	2 3/4	1 3/8
VC25-32	25	32	45	6 1/2	2 3/4	1 3/8
VC50-32	50	32	65	6 1/2	2 3/4	1 3/8
VC75-32	75	32	65	6 1/2	2 3/4	1 3/8
VC100-32	100	32	65	6 1/2	2 3/4	1 3/8
VC150-32	150	32	65	6 1/2	2 3/4	1 3/8
VC200-32	200	32	65	6 1/2	2 3/4	1 3/8
VC250-32	250	32	65	6 1/2	2 3/4	1 3/8
VC500-32	500	32	120	7 1/2	3 3/8	2
VC100-A	100	32	100	6 1/2	2 3/4	1 3/8
VC250-A	250	32	100	6 1/2	2 3/4	1 3/8
VC6-20	6	20	30	4 1/2	2 3/4	1 3/8
VC12-20	12	20	30	4 1/2	2 3/4	1 3/8
VC25-20	25	20	30	4 1/2	2 3/4	1 3/8
VC50-20	50	20	45	4 1/2	2 3/4	1 3/8
VC75-20	75	20	45	4 1/2	2 3/4	1 3/8
VC100-20	100	20	45	4 1/2	2 3/4	1 3/8
VC250-20	250	20	65	6 1/2	2 3/4	1 3/8
VC500-20	500	20	120	7 1/2	3 3/8	2
VC6-16	6	16	25	4 1/2	1 3/8	3/8
VC12-16	12	16	25	4 1/2	1 3/8	3/8
VC25-16	25	16	25	4 1/2	1 3/8	3/8
VC50-16	50	16	45	4 1/2	1 3/8	3/8
VC100-16	100	16	45	4 1/2	2 1/4	3/8
VC25-10	25	10	20	2 1/2	1 1/2	1/2
VC50-10	50	10	20	2 1/2	1 1/2	1/2
VC50-10-A	50	10	40	3 1/2	2 1/2	1/2
VC100-10-A	100	10	40	3 1/2	2 1/2	1/2
VC150-10-A	150	10	40	3 1/2	2 1/2	1/2
VC250-10	250	10	45	4	3 1/2	1/2
VC500-10	500	10	45	4	3 1/2	1/2
VC100-7.5	100	7.5	35	4 1/2	1 1/2	3/8

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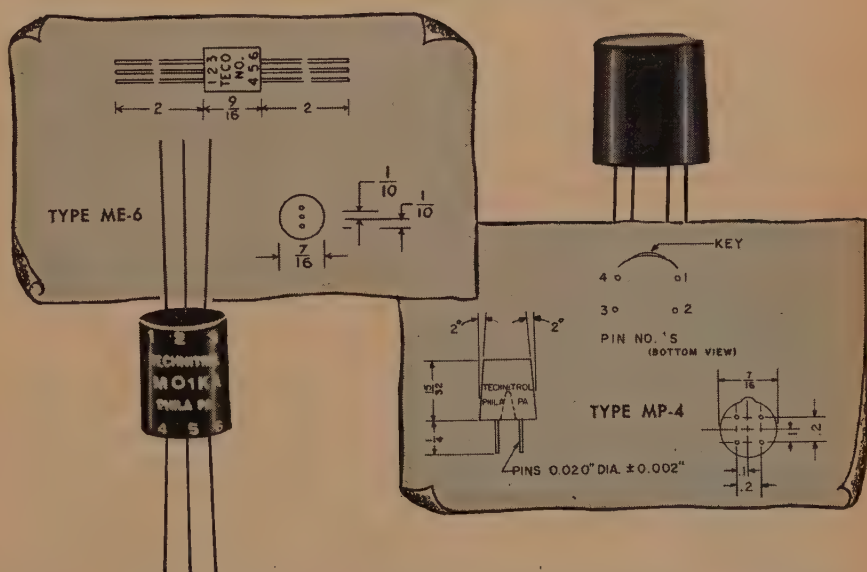
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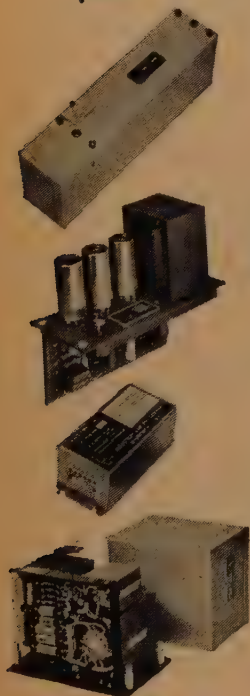
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AMPLIFIERS

Type	Shaft Power	Type No.	E_s	Z_{in}
FPE25-11	5W	410A	100 mv RMS	250K
FPE25-11	5W	407A	5 mv D.C.	2 MEG OHMS
FPE25-84-4	10W	737A	200 mv D.C.	500K
FPF66-11-1	50W	722A	100 mv RMS	500K
FPF66-11-1	50W	729A	200 mv D.C.	500K
R-110	1.8W	434B	300 mv RMS	10K
R-110	1.8W	701B	100 mv D.C.	50K
R-112	5.4W	751B	100 mv RMS	1 MEG OHM
FPE49-19-1	25W	721B	100 mv RMS	500K
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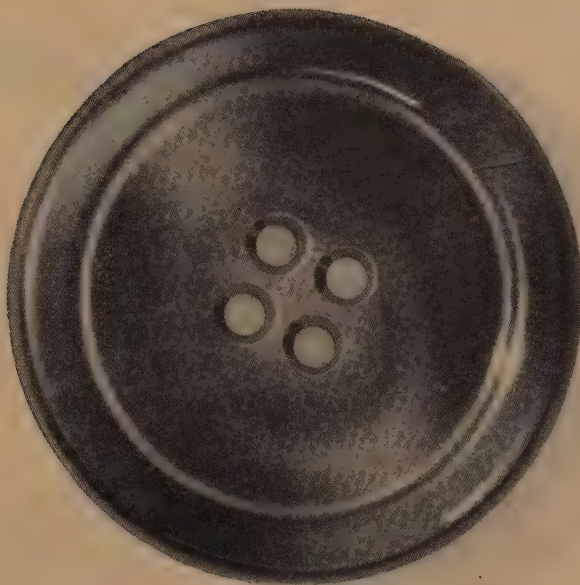
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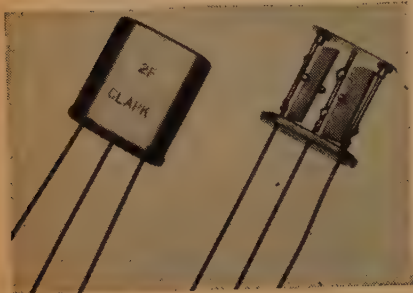


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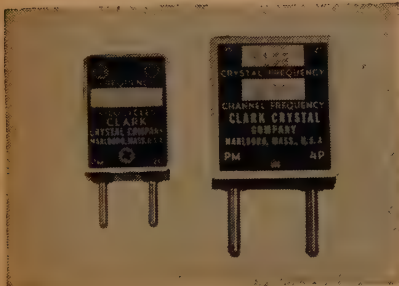
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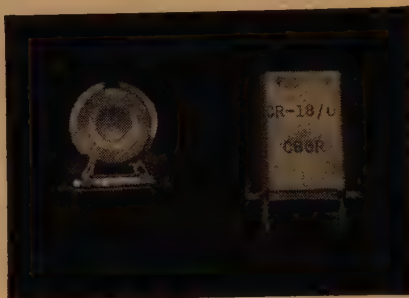
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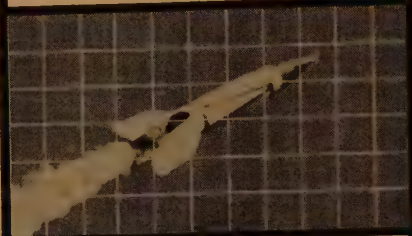


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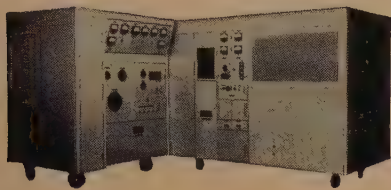
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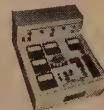


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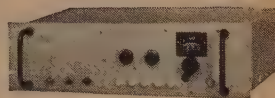
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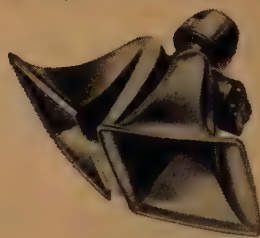
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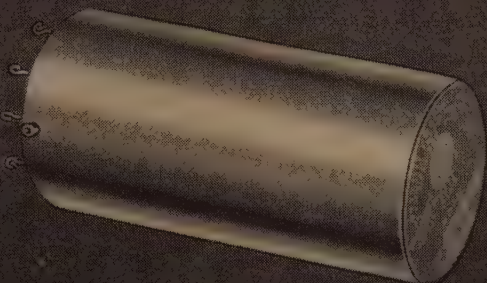


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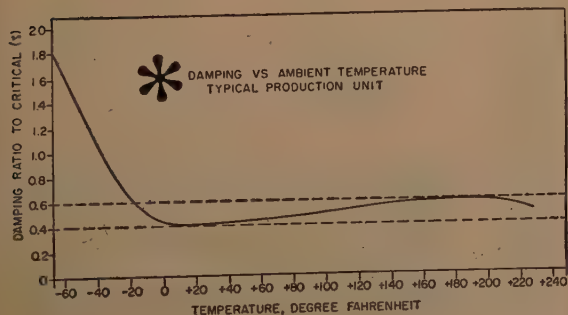


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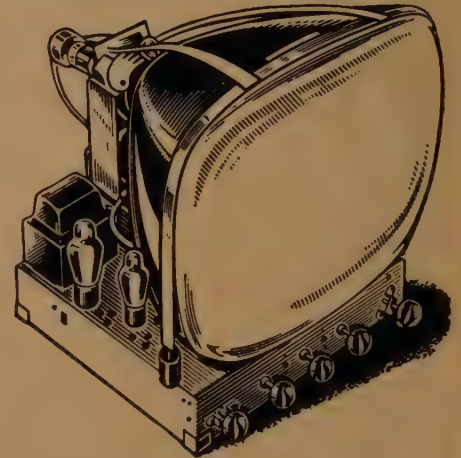
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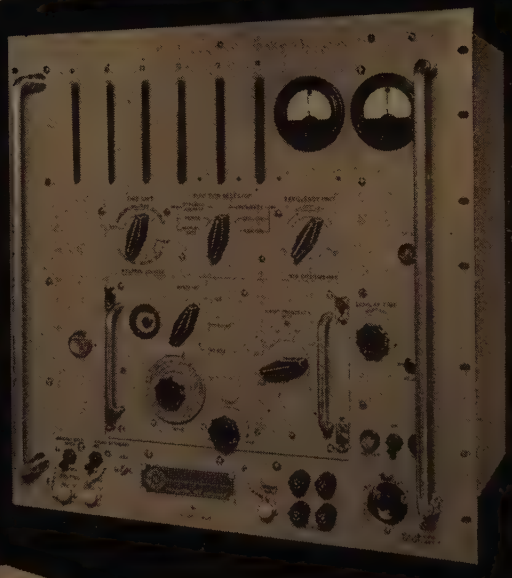


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SIGNAL
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900 to 2100 mc

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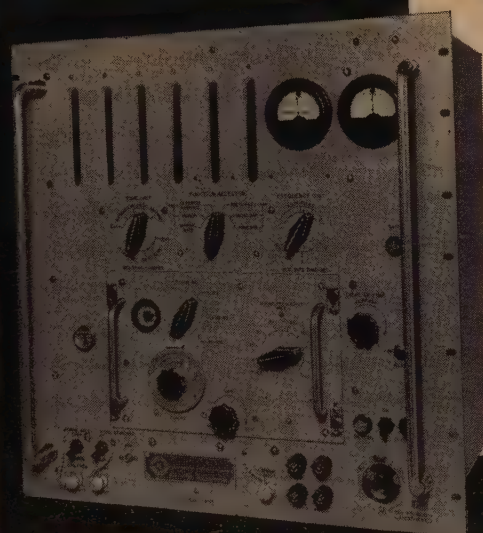
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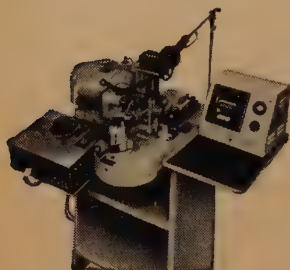
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Automatic Toroidal Coil Winder, TW200



Fastest automatic toroidal winder in the industry. Winds at fixed or variable speeds to 1200 rpm, operator never touches coil during winding because of automatic coil rotation, handles all types of magnet and other wire, winds toroids .218" ID through 5" OD, wire sizes No. 20 through 42 AWG. Extra features: 360° continuous, segmental and longitudinal winding, foot switch control, predetermined turns and linear counters, interchangeable shuttle heads and shuttles.

Semi-automatic Toroidal Coil Winder, TW201

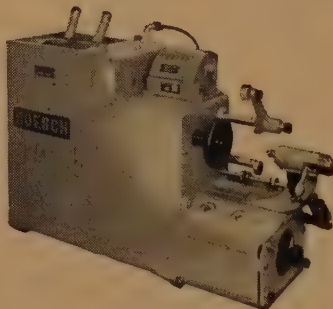
Low cost, high production winder, motor driven, core oscillating devices manually operated. Winds at fixed speeds of 600 rpm, variable speeds to 1200 rpm, winds toroids .218" ID through 5" OD, wire sizes No. 20 through 42 AWG, interchangeable shuttle heads and shuttles.

Subminiature Toroidal Coil Winder, SM

Winds toroids down to 1/16" ID. Maximum coil OD is 3/4", maximum height is 1/2". Winds wire to No. 50. Speed is variable to 800 rpm. Standard equipment includes most customized features: reversing mechanism, wire spacing and core rotation direction controls, wire tension device, pre-set linear counter, foot treadle control. Extras: 360°, continuous and segmental winding, predetermined turns counter.

Bobbin Winder, BW

Winds bobbins, solenoids, resistors, relays, random wound and precision interleaved coils. Sizes from 1/32" through 5" long, to 5" OD. Wire sizes No. 17 through No. 50. Speed to 8,000 rpm. Fully automatic. Standard equipment: built-in gear box, traversing mechanism with backlash eliminator and instantaneous reverse, pre-set counter with automatic shut-off, wire guide, reversing motor, continuously variable speed control. Extras: safety devices, wire-break and run-out control, intermediate wire-lay gears, direction indicator, multiple setting counters.



Toroidal Tape Winder, TW

For non-adhesive type tapes 1/4" wide. Winds from 7/16" ID to 2" OD. 360° continuous core rotation with variable speed arrangement. Tape overlap continuously adjustable.

New! Permeameter Core Grader, BPA

Grades: powered iron and Mo-permalloy toroidal cores with direct reading in percentage of nominal turns. Grades cores with permeability of 14 to 125 in sizes .300 ID to 5.28 OD production grading. Nominal accuracy .25%, meter reads to .1%.



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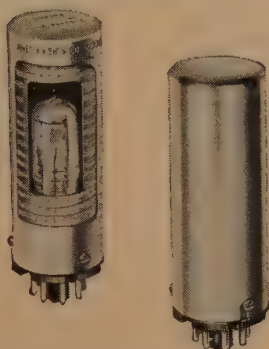
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JK SULZER FREQUENCY STANDARD



JK Sulzer Frequency Standard: For your most precise laboratory measurements, the JK SULZER 1 megacycle Frequency Standard provides stability of better than 1 part in 10^9 per day. Frequency is variable over a range of 0.9 cycles or more, and capable of being reset to 5 parts in 10^{10} .

JK THERMYSTAL



JK Thermystal: An advanced-design frequency control unit combining plug-in simplicity with extreme precision. *Frequency stability:* 30 to 900 kc, $\pm .0001\%$; 1000 kc to 150 mc, $\pm .00005\%$.

JK TRANSISTOR OSCILLATOR

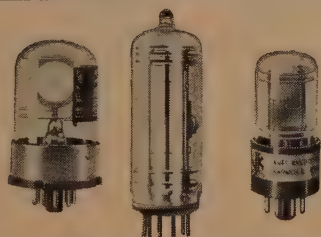
JK Transistor Oscillator: Complete, compact, precise plug-in signal source providing fixed temperature and humidity environment for transistor and circuitry elements. *Frequency stability:* (24-hr. period) 1 part in 10^6 .

JK CRYSTAL FILTERS



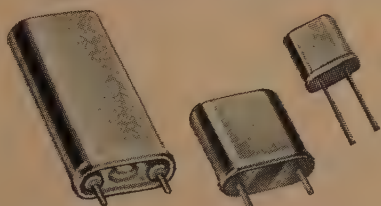
JK Crystal Filters: Compact, rugged, hermetically-sealed and stable, JK CRYSTAL FILTERS (band pass filters) have a *Frequency Range:* 1 mc to 17.5 mc., and are available for special filtering purposes to 150 mc. *Band Width* at 6 db: 0.01% to 4% of nominal on all frequencies, and up to 12% for certain frequencies.

JK GLASLINE CRYSTALS



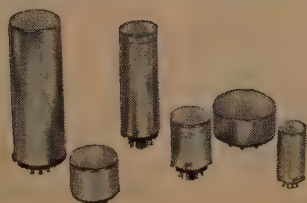
JK Glasline Crystals: For ultra stable frequency control, JK GLASLINE CRYSTALS provide unprecedented stability and reliability. Compact, evacuated and hermetically-sealed against moisture, contamination, shock, and barometric pressure. Over a complete range of 800 cycles to 5 mc. and up.

JK MILITARY TYPES



JK Military Types: Hermetically-sealed, JK MILITARY TYPE CRYSTALS are metal-cased and in *Frequency Ranges:* 16 kc to 100 mc.

JK OVENS



JK Ovens: Capable of maintaining set temperatures around components or circuitry with less than $\pm 1^\circ \text{C}$. variation over the range of -55° to $+100^\circ \text{C}$., JK OVENS are light, compact, inexpensive, uniform and reliable.

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SG-25 STANDARD SIGNAL GENERATOR

Equivalent to AN/URM-25D. For alignment of radio receivers, measurements of receiver sensitivity and selectivity, and in all radio frequency voltage measurement work.

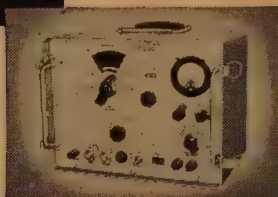
- Frequency Range: 10 KC to 50 MC in 8 bands
- Calibrated Output: 0.1 to 100,000 microvolts into 50 ohms
- High Output: 2.0 volts, 500 ohms impedance



SG-26 STANDARD SIGNAL GENERATOR

Equivalent to AN/URM-26B. For alignment of radio receivers, measurements of receiver sensitivity and selectivity, and in all radio frequency voltage measurement work.

- Frequency Range: 4 to 405 MC in 6 bands
- Calibrated Output: 0.1 to 100,000 microvolts into 50 ohms
- Output Impedance: 50 ohms nominal



RT-500 RECEIVER-TRANSMITTER TESTER

Equivalent to AN/TRM-1. Laboratory-quality portable instrument, designed to measure performance on transmitting and receiving equipment.

- Frequency Range: 190 KC to 400 MC
- Signal Generator Output: 2.5 to 100,000 microvolts into 50 ohms
- Transmitter Tester Power Range: 3 to 100 watts
- Volt/Milliwatt Meter: multi-range meter measures AC, DC volts and milliwatts



PO-400 PULSE OSCILLOSCOPE

Equivalent to AN/USM-38. Precision portable oscilloscope for analyzing amplitude and time characteristics of complex electrical waveforms.

- Transient Response: 0.06 microseconds (rise time)
- Square Wave Response: less than 5% drop at 50 cycles
- Deflection Sensitivity: 0.1V RMS per inch
- Sweep: 1 to 100,000 microseconds per inch, triggered or recurrent



AT-120 R. F. STEP ATTENUATOR

Designed for use in output systems of signal generators, precision microvolters, IF strips of microwave receivers, etc.

- Frequency Range: 0 to 1000 MC
- Attenuation Range: up to 120 db in ten steps
- Output Impedance: 50 ohms standard, 75 ohms optional
- VSWR: 1.1 up to 500 MC, 1.2 up to 1000 MC



CS-200 SERIES COAXIAL SWITCHES

For all types of coaxial switching.

- Positions: up to 12
- Nominal Impedance: 5 ohms
- VSWR: 1.2 up to 500 MC, 1.3 up to 1000 MC
- Cross-talk for 12 Position: greater than 75 db down at 1000 MC



CM-300 CRYSTAL DETECTOR MOUNT

For general purpose in RF monitoring 50 or 75 ohm coaxial systems. Can be used with Trad Attenuator AT-120.

- Frequency Range: 10 to 1000 MC
- Accuracy: 1/2 db
- Impedance: available in 50, 75, 100, 150 and 225 ohms
- Maximum Signal Output: 2.5 V RMS



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Combines stabilized organic resins with those of the silicone group to form a product of unequalled heat resistance and non-corrosiveness. Short-time dielectric breakdown is 8000 volts minimum. Withstands continuous exposure to 232°C. for 4 hours; 180°C. for 115 hours; 150°C. for 320 hours and 130°C. for over 2000 hours. Meets requirements for Grades B-A-1, MIL-I-3190A, ASTM and NEMA. Available in Black and colors.

BH VINYL-FLEX 4000

Offers the versatile properties of vinyl-glass sleeveings at low cost. Meets all requirements of MIL-I-3190A, ASTM and NEMA standards for Grades B-B-1, B-C-1 and B-C-2. 4000 volt short-time dielectric breakdown. Excellent flow, chemical and oil resistance. Combines advantages of many grades, offers sleeving economies by standardization of inventories. Available in standard sizes and colors.

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BH EXTRA FLEXIBLE FIBERGLAS SLEEVING

Comparable to single saturated (B-C-3) sleeveings but completely flexible, even after exposure to heat aging, since no hardening varnish is used. Non-fraying because of patented braid treatment.

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An unsaturated sleeving. Patented process retards raveling without the use of impregnants or binders. For temperature applications up to 1200°F.

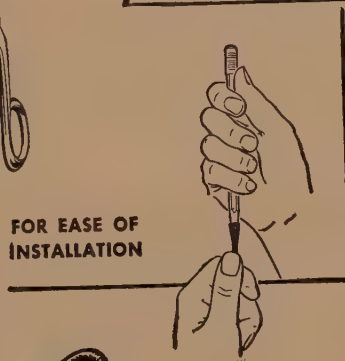
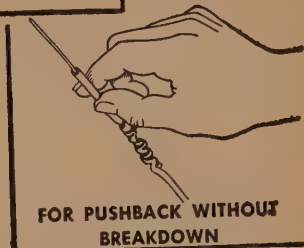
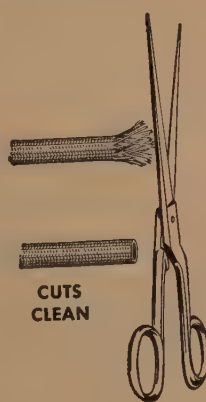
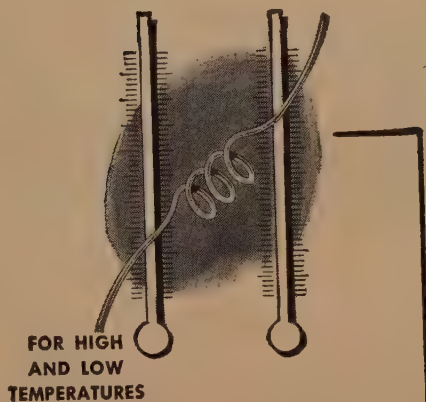
BH FLEXTRUDE-105

A 100% extruded vinyl tubing. Designed especially for insulating electric motors, transformer leads and other instances where high cut-thru, heat and oil resistance is important. Underwriter's Laboratory rated for continuous operation at 105°C. Available in colors and transparent from #24 to 2½".

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A combination of duPont Teflon and glass fibers. Knots tight—will not slip. Non-shrinking, non-absorbent, inert, wax-free and fungus proof. Pliable from -100°F. to 500°F.

Check these superior Bentley, Harris products for the electrical insulation you need to protect *your* products. We invite you to send for samples to make your own tests. Feel free to call on the BH Laboratories for help in specific insulation problems — we welcome tough assignments. Write for complete BH Insulation details, or additional catalog information.



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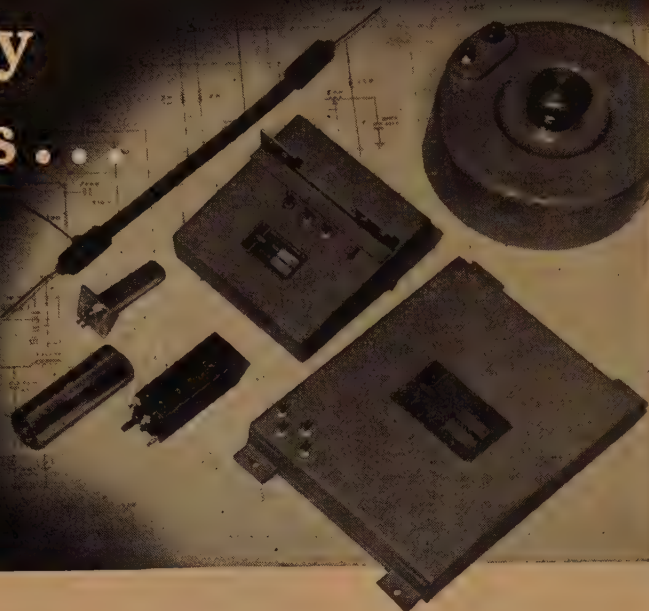
*BH Non-Fraying Fiberglass Sleeveings are made by an exclusive Bentley, Harris process (U.S. Pat. Nos. 2393530; 2647296; and 2647288). "Fiberglass" is Reg. TM of Owens-Corning Fiberglass Corp.

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ELECTRONICS BUYERS' GUIDE — June, 1957 — MID-MONTH

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Available in flexible stick and canned form. Flexible lines are totally enclosed and hermetically sealed in a tough polyvinyl sheath with molded polyvinyl end caps. They are specially designed to give long life even under roughest conditions. Canned lines are available in square or round form, encased in hermetically sealed, copper plated cans. Molded Plaskon cans are available for large production runs. Intermediate taps on the line can be provided. Distributed Lines have a delay of 0.05 usecs per ft., with characteristic impedance of 1250 ohms $\pm 10\%$. They conform to JAN or MIL specifications. Custom designed Silver Ceramic Rods are also offered at surprisingly low cost.

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Outputs: Linear and nonlinear functions of applied pressure.

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Types: Absolute and differential.

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Sensitivity: 5 mv/v at full scale.

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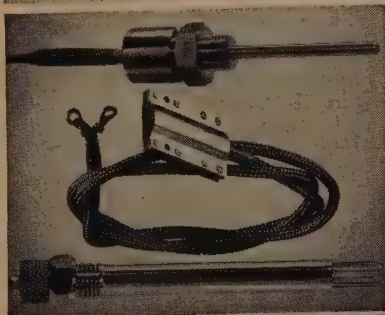
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Outputs: 5 volt signal and/or dial indicator.

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LING

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				FORCE-LBS. RMS.	FORCE LBS. PEAK	
PA-250-B	250 watts	500 watts	70	—	—	—
PA-500-B	500 watts	800 watts	100	—	—	—
PP-1/2-A	1,000 watts	2,000 watts	200	—	—	AP-5-A
PP-3.5/4-A	3,500 watts	4,000 watts	800	500	1,500	AP-5-A
PP-7/8-A	7,000 watts	8,000 watts	1,200	840	2,520	AP-10-A
PP-20/20-C	22,000 watts	22,000 watts	3,500	2,500	7,500	AP-20-A
PP-40/40-B	44,000 watts	44,000 watts	5,000	3,500	10,500	AP-40-A
PP-60/80-A	60,000 watts	80,000 watts	7,000	5,000	15,000	AP-60-A
PP-90/140-A	90,000 watts	140,000 watts	12,500	8,800	26,400	AP-60-A
PP-90/140-A	90,000 watts	140,000 watts	21,500	14,800	44,400	AP-60-A



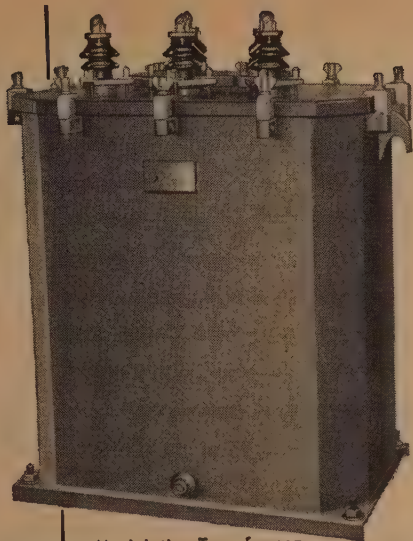
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ELECTRONICS, INC.

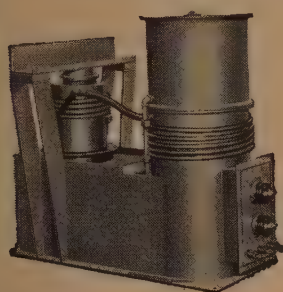
5120 West Jefferson Boulevard • Los Angeles, California



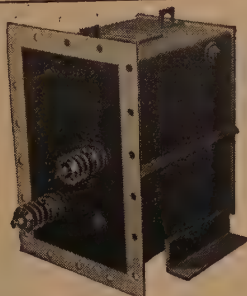
Low Voltage Rectifier
Plate Transformer



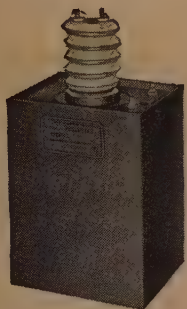
Modulation Transformer



Pulse Transformer



Charging Reactor



Filament Transformer

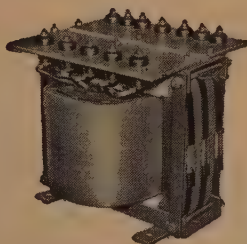


Plate Transformer



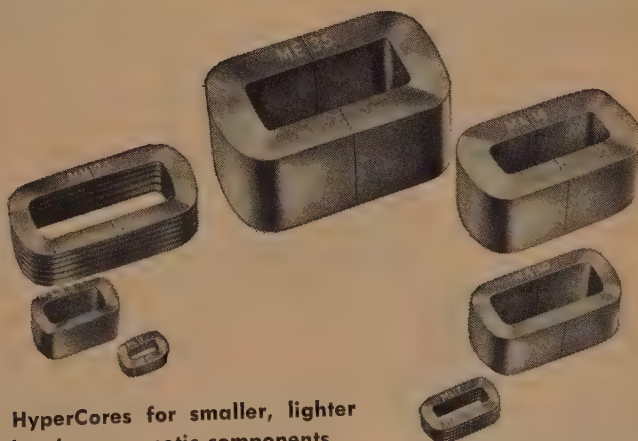
MAGNETIC COMPONENTS for ELECTRONICS

Plate Transformers • Modulation Transformers
Reactors • Filament Transformers • Unit Rectifiers
Pulse Transformers • Charging Reactors
Oil, Askarel, Dry Type (Groups 1, 2, 3)
Per Mil-T-27, RETMA and ASA Specifications

Moloney engineers are pioneers in the use of grain-oriented, high permeability, silicon steel for transformer cores. This engineering background and experience enables the Moloney Electric Company to produce highest quality transformers that offer the maximum in reliability, endurance and efficiency with a minimum of size and weight.



Write for Catalog SR 207 "HyperCores for Magnetic Components" and Catalog ST 3506 "Magnetic Components for Electronic Applications"



HyperCores for smaller, lighter
low-loss magnetic components

MOLONEY ELECTRIC COMPANY

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COAXIAL

Filters

Diplexer for
AN/ARC-27 and AN/ARC-21



MICROPHASE has in production filters using *all* of the common coaxial filter techniques: tubular, lumped-constant, transmission-line, and split block — and some unique ones, too.

**HIGH-PASS • LOW-PASS • BAND-PASS
VHF • UHF • MICROWAVE
DIPLEXERS • MATCHING NETWORKS**

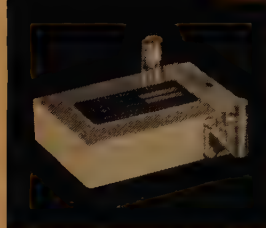
Tubular Low-Pass Filter



Miniature 1450-mc
Low-Pass Filter



Miniature 400-mc
Low-Pass Filter



Sharp-Rise 2700-3000-mc
Band-Pass Filter



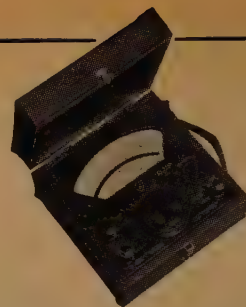
Sharp-Rise 5000-mc
High-Pass Filter



**MICROPHASE
CORPORATION**

P. O. BOX 1166Q
GREENWICH, CONN.
NORMANDY 1-6200

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MULTIMETERS and REGULAR METERS
AC and DC types, multiple ranges, accuracy —
1/2 of 1%. 2 microamperes to 1 ampere DC.
2 milliamperes to 3 amperes AC.

ELECTROSTATIC VOLT METERS
Ranges 100 V to 35,000 V, AC or DC. Resistance
exceeds million megohms. Can measure static
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ROTATING COIL GAUSSMETERS
Our most recent development for measuring
magnetic field strengths. Measures from a few
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Now available, popular type RL11C, for radar
and computer circuits — write for new bulletin.

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ELECTRICAL INSTRUMENT CO.

111 Potter Street, Cambridge, Mass.

NEW CHRISTIE
SILICON
POWER RECTIFIERS



For Top Reliability

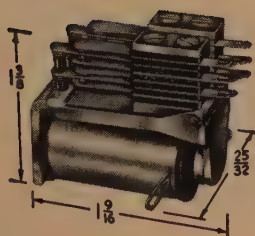
- A standard line from 30 to 1000 amps
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- For Missile, Aircraft, Lab & Factory

Write for Latest Bulletins on
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Dept. EL, 3410 W. 67th St., Los Angeles 43
Over a Quarter Century of
Rectifier Manufacturing

P&B RELAYS

are used in every industry. Design engineers like their quality and P & B's ability to build to exact specifications. Here is a "sampler" of basic types



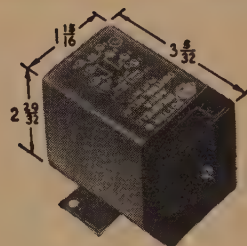
communications

MH Series telephone type relays are small, versatile and available in contact arrangements up to 18 springs (9 per stack) DC and a variety of contact materials. Silver contacts ($\frac{1}{8}$ ") are rated 5 amp. 115 V. 60 cycles resistive load. High temperature models operate from -65°C to $+125^{\circ}\text{C}$.



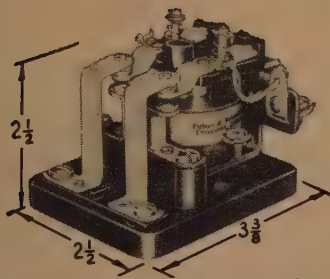
missiles and jets

BD "Star Series" relays are used in applications demanding maximum reliability. These 26.5 V. DC relays were designed to surpass shock test II per MIL-R-5757C, 50 G and vibration Grade III per MIL-R-25018; 5-2000 cps at 15 G. This 6 pole, double throw relay is operative in ambients of -65°C to $+125^{\circ}\text{C}$.



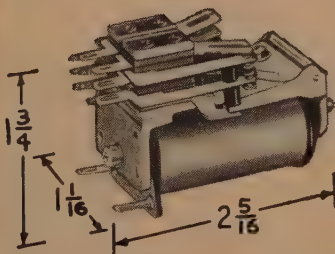
air frame

AC Series relays are designed for air-frame controls and other applications calling for good mechanical shock resistance. Relays are enclosed in dust proof cover; phenolic base meets U/L spacing and creepage distances. Double pole double throw contact arrangement in AC and DC models.



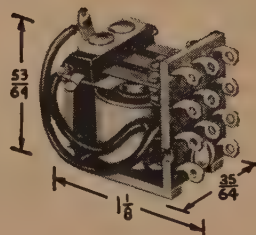
machine tools

PR Series relays are rugged, fast acting . . . designed for high current or high voltage switching. Floating movable contact carrier assures ample wipe and contact pressure. AC or DC models available with contact arrangements up to double pole double throw. Supplied open or with dust cover.



instrumentation

LS Series relays—Medium coil, telephone type—have special hinge construction resulting in a mechanical life in excess of 100 million operations. Contact arrangements go to 20 springs (10 per stack). Power required: 100 mw per movable arm. DC only to 200 V. Open or hermetically sealed models.



business machines

KM Series relays meet the demand for miniaturization and multiplicity of action within a single relay. Contact arrangements available from single pole single throw to three pole double throw. May be ordered in coil voltages up to 48 V. DC in open or sealed models. Weight, open, 7/8 oz. Sealed, 1-1/4 oz.

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SUBSIDIARY OF AMERICAN MACHINE & FOUNDRY COMPANY

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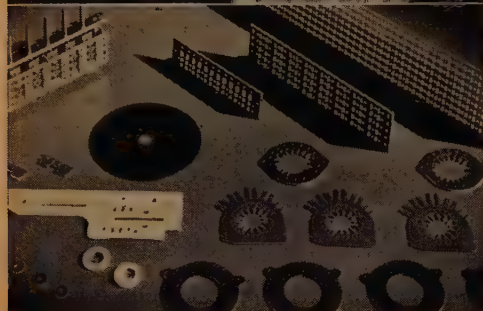
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... laminated—molded



COPPER-CLAD INSUROK

Choice of various grades. Copper bonded to one or both sides. Outstanding electrical properties after humidity conditioning. High flexural and tensile strength. Holds metal inserts and lugs securely. Excellent bond strength and heat resistance.



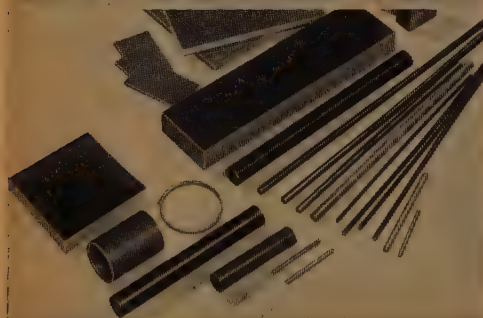
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Complete facilities for punching or machining precision parts from laminated INSUROK to your specifications in any quantity—for electrical or mechanical applications.



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Parts molded from standard or special plastics materials as required for your product, including newest plastics. Produced by compression transfer or injection processes. Metal inserts molded in position.



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Available in sheets, rods, and tubes in NEMA and special grades. Properties to meet practically any electrical or mechanical requirements. Many sizes and thicknesses.

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Experienced Richardson engineers will analyze your requirements and help you select the material, and best manufacturing process for your needs . . . and when your requirements are unusual, Richardson offers extensive background for developing special plastics materials for your product. Also, Richardson is equipped to provide complete facilities and techniques for molding, laminating, molded laminates, and fabricating. You are assured the correct material and process for each application. These research, design, and engineering services are yours without cost or obligation, of course. Write or phone, today.

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LAMINATED AND MOLDED PLASTICS

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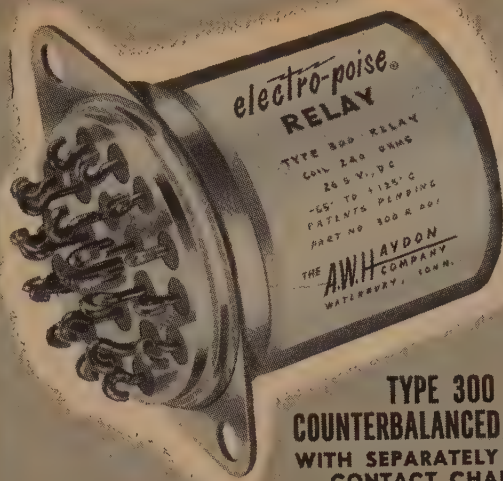
FIRST Really New RELAY

TO MEET TODAY'S RIGID REQUIREMENTS
PERFECTED BY THE

A. W. HAYDON CO.

This miniature, hermetically-sealed, general purpose relay has been designed with increased magnetic force to provide higher contact pressures and greater travel than are usually found in this type. Special care has been taken to assure reliable operation in low level circuits.

Rated Load: 2 amperes, 28 Volts DC, resistive. Ambient Temperature Range: -65°C to +125°C. Vibration: 15g to 2,000 cps — no contact chatter. Shock: 50g, 11 milliseconds — no contact chatter. Write for Bulletin AWH RY 1001.



**TYPE 300
COUNTERBALANCED RELAY
WITH SEPARATELY SEALED
CONTACT CHAMBER**

Uniquely designed with contacts isolated from coil. Contacts can never become contaminated with vapors or gas from organic insulating materials.

TIMING AND CONTROL DEVICES BY THE A. W. HAYDON COMPANY ARE RECOGNIZED AS THE MOST DEPENDABLE PERFORMERS IN THE FIELD.

400 CYCLE MOTORS

Reversible — Light weight (8 ounces). 115 volts $\pm 10\%$; 55 milamps. Torque: 0.025 oz-in at 3000 rpm. Meet Military Requirements. Write for Bulletin AWH MO 803.



MINIATURE HERMETICALLY SEALED TIMERS

Supplied in 2 1/2" diameter housing. Optional mounting and electrical termination.

TIME DELAY RELAYS

Single or multiple switching. Delay periods from 2 seconds to 3 hours. Write for Bulletin AWH TD 400.

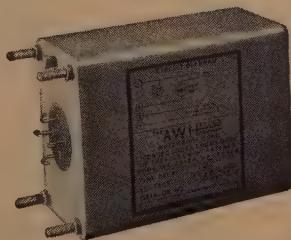
REPEAT CYCLE TIMERS

Single or multiple switching. Wide Range of Time Cycles. Write for Bulletin AWH RC 200.

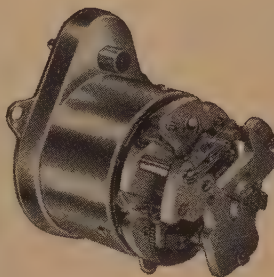


PROPORTIONAL DELAYED RESET TIME DELAY RELAY

Provides a controlled reset rate. Designed to meet special applications. Hermetically sealed or enclosed in dust cover. Meets military requirements. Write for Bulletin AWH TD 402.



GOVERNED DC MOTORS



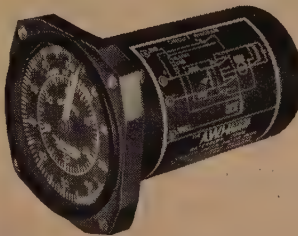
The A. W. Haydon Company now offers 3 series of Chronometrically Governed DC Motors. Each designed to do the same job in a different application. 5700 Series — non-military applications where extreme temperature, vibration and shock are not experienced. 5600 Series — Aircraft and military applications where extreme temperature and moderate vibration and shock are encountered. 5800 Series — Aircraft and missile applications where extreme temperature, vibration, and shock are encountered. Write for Bulletin AWH MO 800, -801, -802, -804.

SPECIAL TIME DELAY RELAY



Supplied in 2.2" diameter housing. Precision unit: $\pm 1\%$ accuracy. Meets military requirements. Adjustable over wide range. Write for Bulletin AWH TD 500.

STOP CLOCKS



20-30 Volts DC. Precision Movement — Electrical Reset Temperature Range -65°F to 185°F. Option on mounting and electrical termination. Write for Bulletin AWH ET 700.

FOR FULL PARTICULARS ON COMPLETE LINE OF THE A. W. HAYDON COMPANY'S ELECTRO-MECHANICAL DEVICES, WRITE FOR CATALOG Dept. EBG



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**A.W. HAYDON
COMPANY**

238 NORTH ELM STREET
WATERBURY 20, CONNECTICUT

Design and Manufacture of Electro-Mechanical Timing Devices

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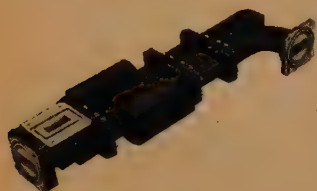
Complete line of Microwave Components

From Magnetron Through Antenna

Designed and Produced

by **Airtron** INC.

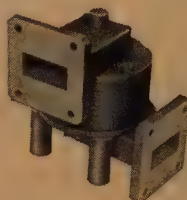
Whether it is "Standard" plumbing or designing an entirely new waveguide system, Airtron's complete facilities can substantially reduce the time and expense between concept and reality. Here are just a few examples:



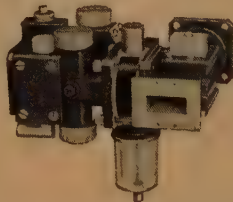
FERRITE COMPONENTS

Duplexers, waveguide switches, high and low power load isolators, variable absorption attenuators and other devices are the result of a continuous ferrite development program. All ferrite materials used are specially compounded and fired in Airtron's Ferrite Research Development Laboratory. Complete facilities permit design and production to meet any specific need.

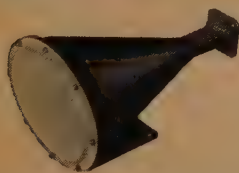
ROTARY JOINTS. Waveguide rotary joints of the coaxial or high power circular waveguide type in many frequency ranges designed for maximum VSWR performance. Produced in volume to your specifications or designed to meet your requirements.



WAVEGUIDE SWITCHES. For frequent, rapid switching to or from noise sources, signal generators, dummy loads, etc. Reversing switches for dual channel systems in GCA or microwave relay radars. Low VSWR, excellent crosstalk characteristics, and high peak power performance. Switching tees, ferrite switches and other special designs.



PRECISION CAST BALANCED MIXERS. Low noise figures over a broad bandwidth are achieved by compact balanced mixer design and use of latest type crystals. Equipped with coaxial or waveguide crystal mounts for frequencies up to 40,000 mc. Standard and special types available. Mixer-Preamplifier packages designed to meet your requirements.



ANTENNAS AND ASSOCIATED COMPONENTS. Horn antennas and feeds for fire control, countermeasure, guided missile, navigational or weather radars. Designed to your specifications and produced in the Airtron precision casting foundry. Complete with rotary joints, flexible sections and associated waveguide assemblies.



FLEXIBLE WAVEGUIDE ASSEMBLIES. Flexible double ridge waveguide for airborne commercial weather radar. Beryllium copper flexible in convolute or type S construction. Waveguide sizes from Ka-Band to 9.750" x 4.875" I.D. in standard lengths or preformed to your installation.

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Twists, Magnetron Transitions • Double Ridge Waveguide Components • RF and Pressure Contact Flanges and Gaskets • Quick Disconnects • Directional Couplers • Short-Slot Hybrids • Antenna Components • Test Horns • Dummy Loads • Flexible Coaxial Transmission Lines • Waveguide Bending and Twisting To Your Specification •

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STABILITY

HUNT CR-7 CRYSTAL



Miniature Type CR-7
Crystal Unit

(Illustration is actual size)

THE Hunt
CORPORATION

CARLISLE 3, PENNSYLVANIA

**WIDE-RANGE
FREQUENCY METER
85-1000 MEGACYCLES**

TS-175A/U

Government
Approved
Calibration
Accuracy:
.005%
Stability:
.0025%
Resettability:
.0025%



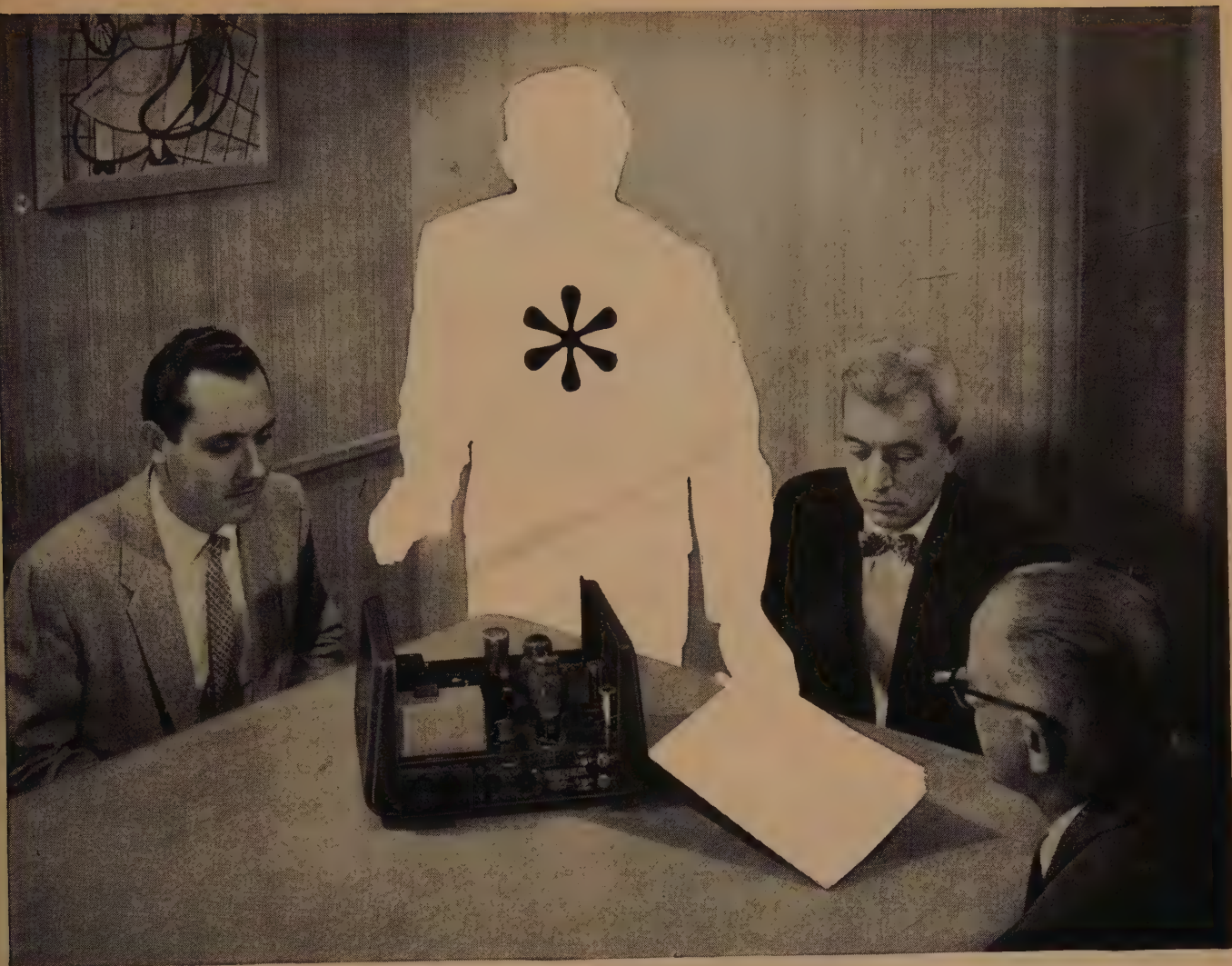
**IMMEDIATE
DELIVERY**

**A VERSATILE PRECISION MEASURING
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ELECTRONICS, Incorporated

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Who, in your organization, can you spare to be responsible for engineering analysis, product testing, or final preparation of service and operational manuals related to your products?

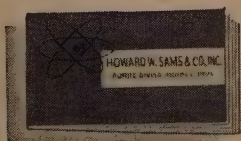
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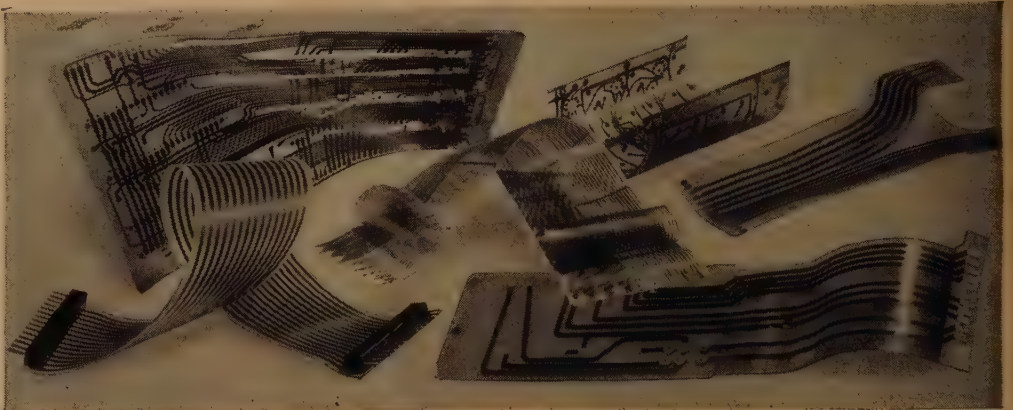
Phone: CLifford 1-4531

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For Dependable Components — SANDERS ASSOCIATES, Inc.

FLEXIBLE PRINTED CIRCUITS —

A new concept in wiring and harnessing, Sanders flexible printed circuitry eliminates wiring errors and reduces assembly costs. Flexible circuits and cables can be made in single—or multi-layer form for use in electronic systems, computer harnesses, switchboards and appliances. Multi-layer construction takes up to 65% less space than conventional wiring, and in some applications has reduced weight by 75%.



"MINICUBE" BLOWER — A

compact, high-velocity blower and motor, in a 1" cube. Designed for use in guided missiles, aircraft, etc. Rugged construction assures reliable performance over a wide range of environmental conditions. Wt: 1 oz.; Input: 400 cps, 4 watts; Output 3 C.F.M.

"Consistently dependable". That's the national reputation established by the electronic, electro-mechanical and hydraulic components engineered and produced by Sanders Associates.

Sanders offers a complete engineering service—including departments for systems engineering, research aerodynamics, modular electronics, microwave engineering, electro-mechanics and hydraulics, commercial development, special purpose tubes, and complete type test facilities. Extensive manufacturing facilities available.

PHASE COMPARATOR—A versatile, full-wave bridge comparator for use as a modulator, demodulator, or switch. Frequency Response: 0-5000 cps; Max. Reference Voltage: 120V. rms; Max. Output Voltages = ± 50 V. DC; Dynamic Range = 46 db. Hermetically sealed.



TRI-PLATE MICROWAVE COMPONENTS —

The bulk and weight of conventional microwave systems can be substantially reduced with Sanders TRI-PLATE components, including variable attenuators, balanced mixers, hybrid rings, directional couplers, low pass filters, power dividers and receiver front ends. Low cost, low leakage and high reliability. Complete systems can be designed for specific application.



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- Lifelong Hermetic Sealing
- Excellent Resolution • High Sensitivity • Small Size: $2\frac{3}{16}$ " long x $15/16$ " Diameter • Light Weight: 3- $\frac{1}{2}$ oz.



For complete information write Dept. EBG-57

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INCORPORATED

NASHUA, NEW HAMPSHIRE

West Coast Field Office: 7335 Van Nuys Blvd.
Van Nuys, Calif. Tel. State 0-2720

Telonic

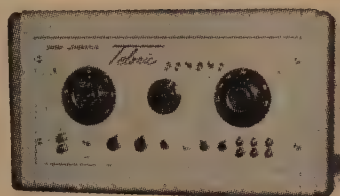
**SWEEP AND
MARKER GENERATORS
TO 2400 MC.**

MASTER LINE

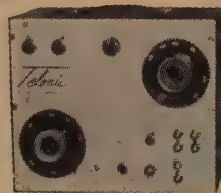
models from 100 mc. to 1400 mc. at fundamental frequency—tunable over 2:1 range or fixed frequency sweeping 1.5:1 band. High output—wide sweep—exceptional flatness.

SWEEP GENERATORS for Testing • Alignment • Measurement

high signal level low leakage flat output
low source VSWR Accurate Marker Systems
Many Models — many frequency ranges



Deluxe Model S5-DT
Bench Style



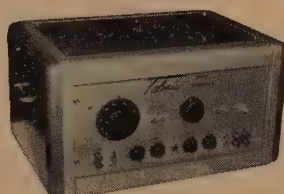
Model S5-MT
Portable Style

ULTRA RANGE SWEEPS

Covering video to UHF by heterodyne method

H-1 range 1-900 mc. sweeping 50 mc.

H-2 } sweeping 1 to 200 mc. in
H-3 } one sweep—.5 volts output



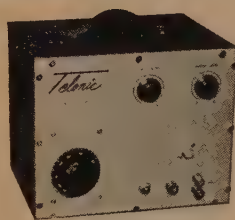
Model H-3



Model H-1

EXTENDED RANGES

Ranges 920-2400 mc.
—.5V output tunable
or fixed wide sweep
models.



Model E2

ELECTRONIC SWEEPS

Ultra flat, high level output swept electronically covering RF and IF frequencies from 100KC to 150 mc.



Model S3A-FT

TELEVISION TWINS

"Standards of the industry" VHF and UHF sweep and marker generators used on many production lines at RCA, GE, Admiral, Oak, Standard Coil and many others.



Model S3A-FT

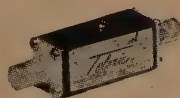


Model SV-3

ACCESSORIES

RF detectors BNC or type "N" connectors flat from 0 to over 1000 mc. VSWR below 1.2:1.

DETECTORS



ATTENUATORS



TA 50-75
0-50 db.—10 db.
steps
0-1250 mc.



0-120 db.
0-200 mc.
50 or 75 ohms

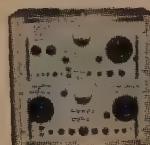
FILTERS



miniature
high pass
low pass
filters

RADAR IF TEST SET

Sweep-markers
Video Pulse
Audio



Telonic designs and builds a complete standard line of sweep generators; any unit can be "tailored" to your individual requirements.

The Telonic line is made to the highest standards of quality and workmanship, and is being constantly enlarged and developed.

World-wide sales representation puts Telonic engineering service at your fingertips.

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Telonic

"WORLD'S
FINEST SWEEP
GENERATORS"

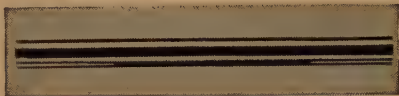
Telonic

INDUSTRIES, INC.

BEECH GROVE, INDIANA

100%
microscopically inspected

GROUND SEAL TUNGSTEN ROD



ELECTRONIC PARTS Ground Seal Tungsten Rod is precision ground and 100% microscopically inspected for cracks and similar flaws to assure lowering of your production costs. Use where ground tungsten parts are required.

*Quality
Tungsten and Molybdenum*

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- Precision Wire Leads
- Hand Wound Coils
- Support Wire and Rod
- Cut and Bevelled Pieces
- Electrodes
- Machined Tube Parts

custom

CENTERLESS GRINDING

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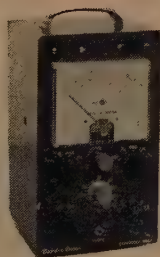
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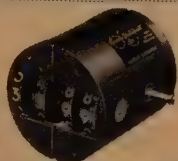


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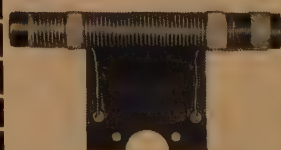
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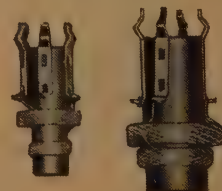
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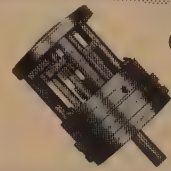
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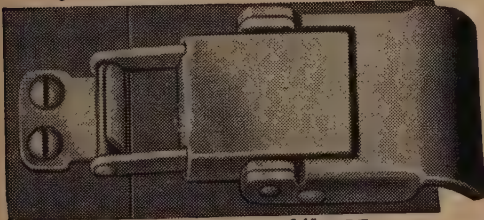
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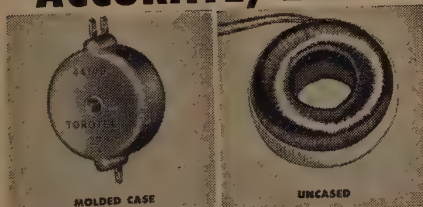
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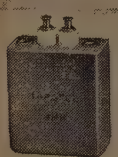
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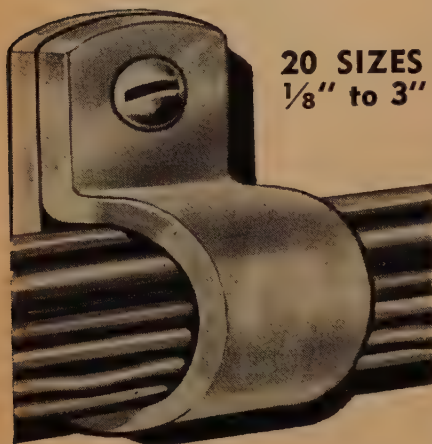
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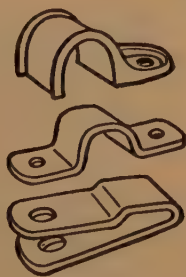
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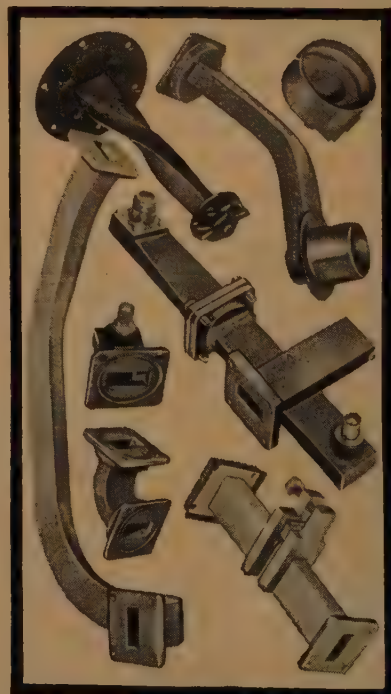
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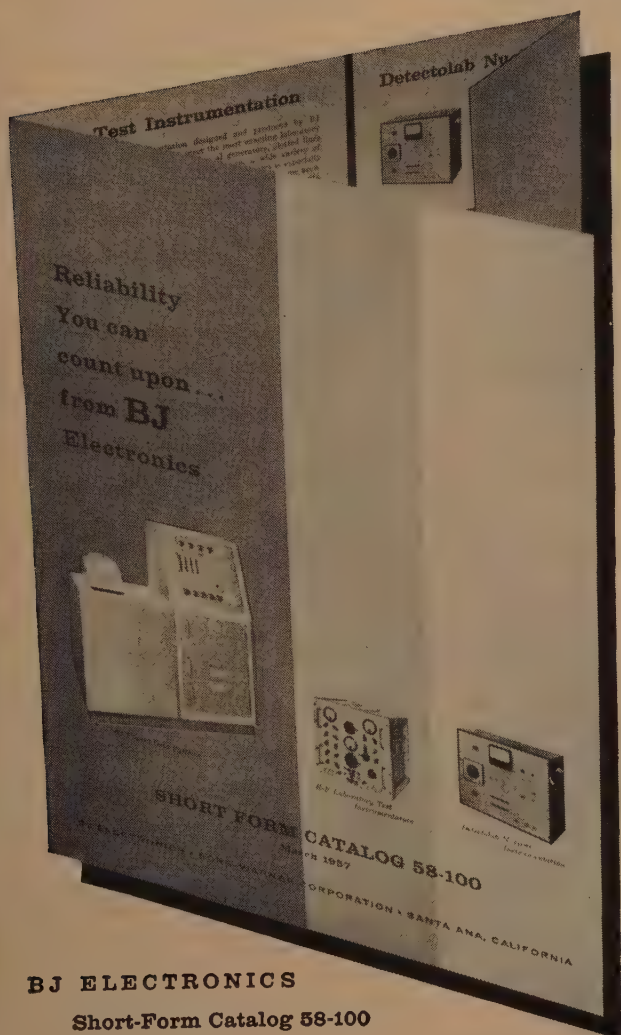
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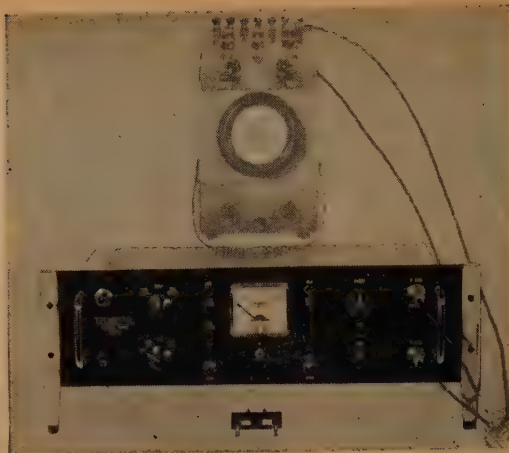
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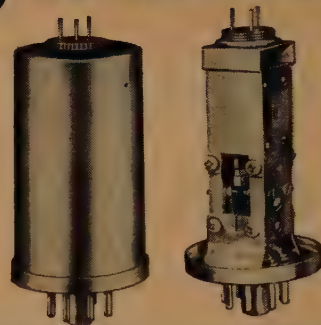
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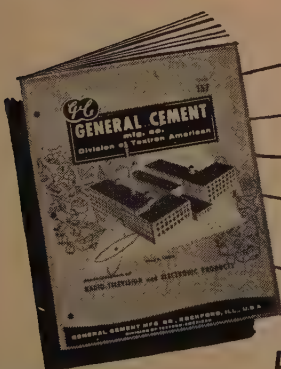
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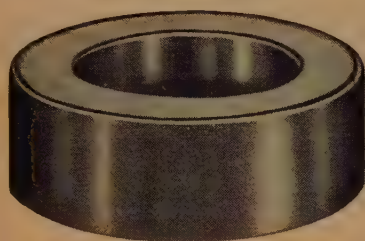
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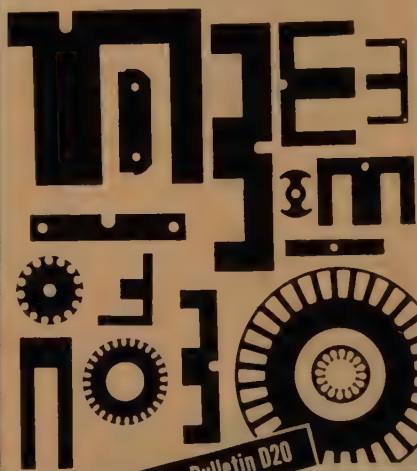
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1	.475	.633	.125	.415	.710	.195
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46	.500	10 turns	.125	.440	.610	.195
*47	.500	.625	.125	.440	.685	.195
*2	.500	.750	.125	.440	.820	.195
72	.500	.750	.188	.440	.820	.262
64	.500	.750	.250	.440	.820	.340
48	.530	.625	.125	.470	.685	.195
36	.563	.750	.125	.500	.820	.195
34	.600	.900	.250	.540	.965	.335
49	.625	5 turns	.125	.550	.700	.195
50	.625	10 turns	.125	.550	.700	.195
74	.625	.750	.125	.570	.820	.195
40	.625	.750	.188	.570	.820	.262
67	.625	.875	.250	.570	.945	.340
*37	.625	1.000	.188	.570	1.085	.262
3	.625	1.000	.250	.570	1.085	.340
32	.625	1.000	.375	.570	1.085	.445
4	.633	.844	.125	.575	.915	.195
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6	.650	1.150	.125	.585	1.150	.195

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WT. SILICON STEEL	.71 lb.	312 gr.		$L_c = (122 \times 10^3) K$	
SPECIFICATIONS			WT. & COUNT		
CATALOG NUMBER	MATERIAL	THICKNESS	LBS./M. PCS.	PCS./LB.	
106LMC4	Microal	.004"	2.521	396.7	
106LA96	"49"	.006"	4.020	248.8	
106LHY6	Hymu	.006"	4.321	231.4	
106LSL14	Silicon	.014"	8.250	121.2	
106LA914	"49"	.014"	9.380	106.6	
106LHY14	Hymu	.014"	10.082	99.2	
SPECIFICATIONS			WT. & COUNT		
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155S4920	"49"	.020"	1.375
155SHY25	HYMU	.025"	1.375
155S4925	"49"	.025"	1.375
155ASHY20	HYMU	.020"	1.52"
155AS4920	"49"	.020"	1.52"
155ASHY25	HYMU	.025"	1.5
155AS4925	"49"	.025"	1.5
155BSHY20	HYMU	.020"	1.6
155BS4920	"49"	.020"	1.6
155BSHY25	HYMU	.025"	1.67
155BS4925	"49"	.025"	1.67A
SHIELD AND COVER DIMENSIONS			
Catalog Number	Material	Thickness	A
636SHY20	HYMU	.020"	1.50"
636S4920	"49"	.020"	1.50"
636SHY25	HYMU	.025"	1.50"
636S4925	"49"	.025"	1.50"
636ASHY20	HYMU	.020"	

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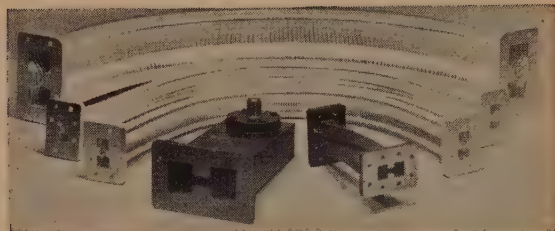
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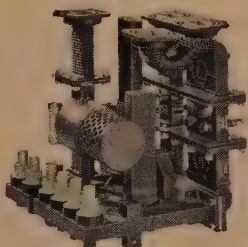
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Technicraft is equipped to design or manufacture to your specifications and drawings any waveguide component or system from face of magnetron through to the antenna. Most advanced test equipment and techniques, plus finest facilities for manufacture and assembly. Mixer duplexer (shown) demonstrates Technicraft know-how in designing and building components into a compact assembly.



FLEXIBLE WAVEGUIDES

Only manufacturers of solderless flexible waveguides, which eliminate problems inherent in soldered structures. (Technicraft uses solder only to attach flanges.) Three types of flexible waveguides are available—Type L—Interlocked, Type S—Corrugated, and Type V—Vertebra. Technicraft's Type S—Seamless Corrugated flexible waveguide is the only seamless flexible waveguide made.



Type L—Interlocked



Type S—Seamless Corrugated



Type V—Vertebra

FERRITE DEVICES

HIGH POWER ISOLATORS Frequency Range KMC: 2.7-2.9 up to 23.5-24.5. Peak Power: 40 KW up to 5 meg. Average Power: 25W up to 5 KW. Isolation Band Ends: 6db up to 37db. Isolation Band Center: 8 db up to 40db. FWD. loss: 0.4db up to 1.6db. Guide Size: .25" x 5" up to 1 1/2" x 3". Special Features: Compact, Broad Band, Med. Power, High Power, Hi-isolation, Gen. Use.

LOW POWER ISOLATORS Frequency Range KMC: 5.4-5.9 up to 34-36. Aver. Power: 1W and 10W. Isolation Band Ends: 10db up to 22db. Isolation Band Center: 25db and 30db. FWD loss: 0.8db to 1.4db. Guide Size: .36" x .22" up to 3/4" x 1 1/2". Special Features: Compact, Hi-isolation, General Use.

FERRITE MODULATORS Frequency Range KMC: 4.9-5.2 up to 34-36.

Max. Cont. Diss: 200 cps to 75KC. Typical Max. Insertion loss: 25db to 35 db. Guide Size: .360" x .220" up to 1" x 2". Special Feature: High Freq. Modulation, Rugged, High Power, Gen. Use.

CIRCULATORS Frequency Range: 8.2-10.2 up to 34.5-35.2. Peak Power: 25W, 150W, 250W. Forward Insertion loss: 0.5, 0.6, 0.7db. Reverse Attenuation: 20db and 25db. Type: 3 and 4 Terminal.

ISOPLEXERS Frequency Range: 8.6-9.6 and 34.5-35.2. Peak Power: 60KW and 250KW. **MISCELLANEOUS FERRITE DEVICES Phase Shifter:** Freq. Range: 8.8-10.4. 10W Microwave Power. 1.0db Insertion loss: 180° phase shift. **Polarization Rotator:** Freq. Range: 8.2-12.4KMC. Operation: Rotates plane of polarization in cylindrical waveguide 90°. **Variable Mismatch Freq. Range:** 9.6-10.3KMC. Min. Mismatch VSWR 1.3 or less. Max. Mismatch VSWR variable to 4.0 or more.

TECHNICRAFT LABORATORIES

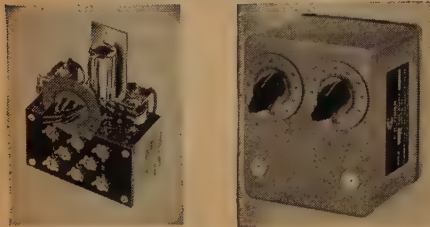
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Waterbury-Thomaston Road
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TIMERS, electronic

provide split-second timing
with no-filament tube



Compact electronic timers use Type 5823 cold-cathode tube, providing long tube-life with instant timing, no warm-up needed; immediate recycling—no recharging time for condenser required. Ideal for Short intervals—0.03 to 24 seconds.

Easy time adjustments—small time intervals can be spread over 320-degree dial.

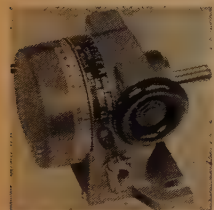
Six-time ranges—can be furnished with full-scale range of 0.2, 0.5, 1.5, 3, 6, 12, or 24 seconds.

Eight-ampere contacts.

Small size— $3\frac{3}{8}$ " $\times$ $4\frac{7}{8}$ " $\times$ 2".

The new Model 3 Repeat-cycle Timer is fully enclosed; has plug-in relays for easy servicing.

Synchronous Contactors



Positive, precise coordination of electrical circuits with mechanical systems. Rotating camshaft actuates distributor-type switches to open and close electric

circuits to control punch presses, machine tools, and computers; provides protection of looms, punch and die tools. Single- and double-circuit models available. Descriptive bulletin on request.

RELAY, electronic

Operated by
high-speed,
low-energy
impulses.



Type CK Electronic Relay picks up impulses too small to operate a mechanical relay directly and holds circuit closed long enough for heavy mechanical equipment to be actuated. Fast response—relay operates on contact of less than 0.5 millisecond.

High sensitivity—above response speed even thru contact resistance as high as 500,000 ohms.

Adjustable actuating time—relay operates in 10 milliseconds after impulse and stays "on" for time adjustable between 0.25 and 1.5 seconds.

Long life—Cold-cathode tube energized only when pulse is received.

Easy maintenance—Enclosed plug-in relay.

Small size— $3\frac{3}{8}$ " $\times$ $4\frac{7}{8}$ " $\times$ 3".

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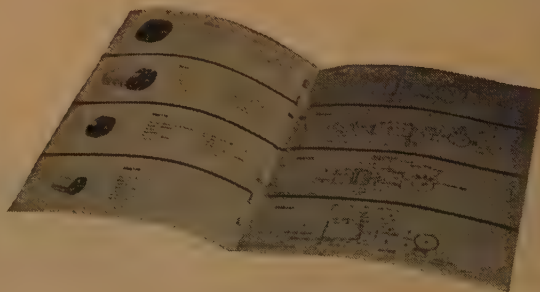
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WITHOUT RE-TWISTING STRANDS

Up to

- 9000 pieces per hour from 1" to 40".
- 7500 pieces an hour; 40 to 60 inches.
- 6000 pieces an hour; 60 to 80 inches overall.

Machine is automatic and doesn't require operator in attendance. All wire discharged from machine can be stacked in trough end to end except for smaller sizes. "Sticky or Tacky" types of insulation are stripped as easily as the hard surfaced types; scrap is readily removed from between the cutting blades automatically. Four different models to serve you. Send for literature.

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50 VA TO 60 KVA - 1, 2 or 3 Phase Power

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3 PHASE POWER CONTINUOUSLY VARIABLE
FROM 360 to 440 CPS

Power output of 750 volt-amperes with output voltage regulation of better than 2% from no load to full load. Harmonic content is below 2% at full load. Also available as a fixed frequency unit employing a tuning fork oscillator to give a frequency accuracy and stability of 1 part in 50,000 independent of line voltage or frequency.

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VARIABLE FREQUENCY ELECTRONIC
GENERATOR - 300 VA OUTPUT 50-6000 CPS
SINGLE PHASE

Available with or without output voltmeter and final amplifier plate current meter. This model is available for other frequency ranges on special order and is also available with a tuning fork oscillator for precision frequency control at any frequency between 50 and 2000 cps.

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MODEL 13



MODEL 24



MODEL 11

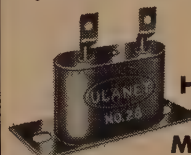
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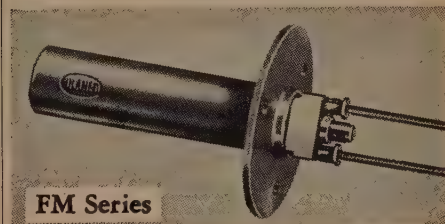
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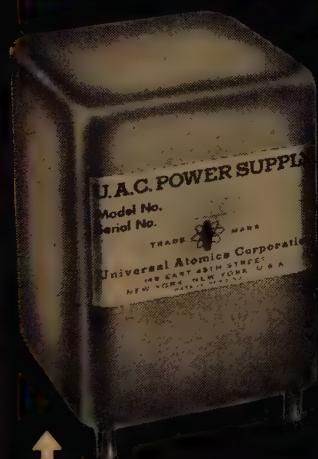
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Regulated UAC transistorized power converter
for Mobile, Vehicular, and Airborne applications

Input: 24 to 29 VDC

Output: 250 VDC @ 200 MA

Regulation: $\pm 1\%$ against load variations
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Size: 2 3/4" x 2 3/4" x 3 3/4"

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UAC high efficiency power supplies
solve size, weight, vibration and shock
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Standard DC to DC units to 150 Watts;
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As small as 1/2 cubic inch per watt

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As high as 98% efficiency

DC to AC and AC to DC units also
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*FULL WAVE BRIDGE & T.C.T. • DATED & ONE YEAR G.T.D.

MAX DC AMP	Single Phase Full Wave Bridge										3-Phase Bridge			
	18VAC 14VDC	36VAC 28VDC	54VAC 42VDC	72VAC 54VDC	130VAC 100VDC	266VAC 217VDC	3 phase 16VAC 12VDC	3-Phase 30VAC 24VDC	3-Phase 120VAC 150VDC	3-Phase 208VAC 256VDC				
1	\$1.50	\$2.30	\$3.75	\$5.30	\$8.75	\$27.90	\$3.75	\$4.90	\$21.45	\$39.75				
2	2.35	3.35	5.40	6.45	11.70	33.60	4.75	5.95	24.90	47.90				
3	3.00	4.15	6.30	9.60	13.45	42.90	5.40	6.85	27.60	63.30				
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6	4.45	8.85	12.90	19.30	32.85	63.90	7.90	9.30	38.45	81.90				
10	6.50	12.60	19.90	27.90	42.30	99.70	9.00	14.25	63.60	117.75				
12	8.10	15.90	22.50	32.75	45.90	111.45	10.75	16.15	69.75	137.90				
20	13.20	25.40	38.00	52.50	79.45	177.90	16.20	24.75	124.15	165.75				
24	16.15	32.40	44.90	63.60	86.35	210.60	18.60	31.70	149.70	279.90				
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50	33.45	63.75	121.50	135.75	192.75	445.90	31.60	46.75	297.90	591.75				

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Variable 0-28 VDC. Completely built. Ready to go. Full Wave Selenium Rectifier. Transformer, Variac, Meters, Pilot Light, 4" Volt & Amp Meters, Switch, Terminals & Fuse, Heavy Duty Steel Cabinet. Std. 115V/60cy Input or 220V† (3 phase) to order.

Stock Number	Continuous Rating	With Meters
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T28V5ACC	5 Amp (1% Ripple)	\$87
T28V5A2CC	5 Amp 0.1% Ripple	155
T28V12A	0-28 VDC at 12 Amp	138
T28V12ACC	12 Amp (1% Ripple)	168
T28V12A2CC	12 Amp 0.1% Ripple	250
T35V16ACC†	0 to 35V at 16 Amp/.5% Ripple	210
T28V24A†	0-28 VDC at 24 Amp	175
T28V24ACC†	24 Amp 1% Ripple	250
T28V24A2CC†	24 Amp 0.1% Ripple	345
T28V50A†	0-28 VDC at 50 Amp	325
T28V50ACC†	50 Amp (1% Ripple)	450
T28V100A†	0-28 VDC at 100 Amp	550
T28V100ACC†	100 Amp 1% Ripple	750
T35V25ACC†	0-35V @ 25 Amp (1% Ripple)	370
T35V50ACC†	0-35V @ 50 Amp (1% Ripple)	639
T60V1AACC	0-60 VDC @ 1 Amp/1% Rip	108
T60V2ACC	0-60 VDC @ 2 Amp/0.1% Rip	139
T60V5ACC	0-60 VDC @ 5 Amp/0.1% Rip	225

Variable 0-130 VDC Completely built.
Includes Isolation Transformer, Variac, F.W. Bridge, Rectifier, 4" Rectangular Volt & Ammeter Specify for 115 or 230VAC/1φ/60cy Input.
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T130V10A† 0-130 VDC at 10 Amp. 275
T130V10ACC† 10 Amp 1% Ripple 369
Includes 4" Meters 2% Acy. *2" Meters

"TABTRAN" Rectifier Xfms
Sec'd Volts (DUAL) 0-9-15-18-40-9-15-18
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TR4001 @ 1 Amp ea/sec/wndg. \$ 4.95
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TR4005 @ 12 Amp ea/sec/wndg. \$ 16.70
TR4006 @ 24 Amp ea/sec/wndg. \$ 35.65
TR4007 @ 50 Amp* per each SEC WNDG. \$ 59.65
TR4008 @ 100 Amp* per each SEC WNDG. \$ 117.00
† Wndgs. in Series at Amps shown; Parallel 2X Current. Voltage equals 0-9-15-18
TAP PRI 105, 110 & 115V; *PRI 115 & 230V/60 cy
AC-Rectifier Transformer (ONLY for 115 or 230VDC Output: when used with A Full Wave Bridge Rectifier)
All Primaries 115 & 230VAC/60 cy/1φ Input.
Secondary 0-125, 150, 160, 165V, *Nema Specs
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Secondary 0-250, 300, 320, 330, Nema Specs
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TR4012† @ 10 Amp Continuous Duty \$ 10.05
† Selenium F.W. Bridge Rectifier Extra!

"TABTRAN" Rectifier Chokes
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CR6005/ 24 Amp/0.04 HY/1 Ohm 29.75
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CE 2005M 500 mfd @ 200 V \$6 ea., 4/22; 10/\$45
Brackets for capacitors 25c ea., 5 for \$1.

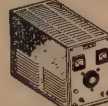
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For 220V/60cy Input. To 110-120V or Step up With Cord, Plug & Receptacle.
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TPA200/200W* 5.75
TPA250/250W* 6.75
TPA500/500W* 11.79
Model TPA 1000 Watts: 1 kW† \$16.95
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* Less Cord, Plug & Receptacle

Isolation and Control Transformers
Indoor Power Circuit Type, NEMA CASED & Specs
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TPP250/250W \$17 TPP1000/1KW \$39
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Also one & 3-phase Booster Transformers.

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New Variable 0 to 6 & 12 Volt 12 Amp DC Power Supply, Filtered



Battery Eliminator, Charger, Auto Radios, Model RR, Plater, Aircraft, Marine or any DC.
Extra Heavy Duty Selenium Rectifier, 2 Meters V. & A. Designed for Cont. Service and up to 20 Amp Intermittent overload; 10% Ripple.

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Consisting of Transformer & Full Wave Bridge Rectifier mtd and wired, fused, outlet, pilot light & ventilated grill & chassis or cabinet. Ready to deliver constant DC Power. 1 yr. Gtd. Input 115 VAC/60 cys.

Stock Number	Continuous Rating	Basic
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B28V/5ACC	5 Amp (1% Ripple)	69
B28V/12A	0-28 VDC at 12 Amp	90
B28V/12ACC	12 Amp (1% Ripple)	135
B28V/24A	0-28 VDC at 24 Amp	139
B28V/24ACC	24 Amp (1% Ripple)	189
B28V/50A	0-28 VDC at 50 Amp	235
B28V/50ACC	50 Amp (1% Ripple)	350
B28V/100A	0-28 VDC at 100 Amp	439
B28V/100ACC	100 Amp (1% Ripple)	600

INDUSTRIAL DC SUPPLIES

B100V1A	100 VDC @ 1 Amp	\$39
B115V1.5A	115 VDC @ 1.5 Amp	52
B115V5A*	115 VDC @ 5 Amp	120
B220V5A*	220 VDC @ 5 Amp	234
B115V5ACC*	115 VDC @ 5 Amp/1% Ripple	169
B115V10ACC*	115 VDC @ 10 Amp/1% Ripple	275
B220V10ACC*	220 VDC @ 10 Amp/1% Ripple	468
* 115 & 230 VAC/60cy/1φ Input		

New "Tekpak" Relay 24 VDC Supplies Cased Filtered Ready to Work. Input 115 VAC/60 cys.

B24V24VDC	24 VDC @ 1 Amp	\$8
B24V24VDC	24 VDC @ 2 Amp	\$11
B24VJR 24 VDC	5 Amp	\$24

"TEKAP"® ONE & 3 PHASE 400 CYS SUPPLIES
3φ 400 cys /115V/750 watt & 1φ/400 cys 28V @ 250 watts with voltage adjustment. Operates 115 & 230V/60cy/1φ input. 28VDC 80 amps Filtered to inhibit Inverter, V/adj & Freq/adj & Radio Noise Filter; All in One Cabinet.

T475B Basic Non-Metered \$475
T4750M DC & AC & Freq Metered \$563

"TEKAP"® 1φ/400 cys/115V/1500 watts Regulated Power Supply Pkgs. Operates 115 or 230V/60cy/1φ input, 28VDC @ 100 amps Filtered to inhibit Regulated Inverter, 900 Watt Cartridge Pile Voltage Regulator, Freq Adj & Radio Noise Filter. All in one Cabinet.
T41500B Basic Non-Metered Supply \$650
T41500M DC&AC & Freq Metered \$738

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NEW "REGOVAC"® 450VDC Pkg

Regulated 250 to 450 VDC @ 200 ma. REGULATION 1% MIN TO MAX. CURRENT RIPPLE LESS THAN 5 MV, IMPED 2 OHMS & ALSO NON REGULATED 125 VDC @ 100 MA. 6.3V/12A. COMPLETE CONTROLS FRONT PANEL, SWITCHES, PILOT LIGHT, BINDING POSTS, FUSES, 4" VOLT AND MILLIAMMETER (2% ACCY) RACK 834 H13D19" W CABINET. 115VAC Inpt. \$135
R200R RACK MOUNTING \$150
R200C CABINET \$150

New "REGOVAC"® 190 VDC PKG. Regulated 145 to 190VDC @ 35 ma. Regulation 1% Min to Max. Constant output for 25% variation in line & load. Extremely low ripple & recovery time. Input 115VAC. Housed in compact cover grill & Chassis.
R35C19 \$24

New "REGOVAC"® 175 VDC PKG. Regulated 75 to 175 VDC @ 50 ma. Regulation 1% Min to Max. Constant output for 25% variation in line & load. Extremely low ripple & recovery time. Also 6.3VAC @ 3 amp. Input 115VAC Housed in compact cover grill & chassis.
R50C17 \$30

New Five Way

"Tekap" Binding Posts



Similar to Superior DF30* takes plugs, tips lugs, wire, 1/16" to 1/4" panel, Red & Black.
BP30*, 30 Amp, 25c @ 12/52, 50/51, 100/519
BP10, 10 Amp, 18c @ 12/52, 50/51, 100/511
BP60*, 60 Amp, 75c @ 12/52, 50/51, 100/519
BP100, 100 Amp, \$1 @ 12/52, 50/51, 100/519

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F.M. RECEIVER TESTER Type TF 913/3.

A v.h.f. signal generator combined with an a.f. power meter. Carrier frequency range: 22 to 176 Mc. Output: 1 μ V to 30 mV at 52 ohms. F.M. variable up to 25,50 or 100 kc. A.M. at fixed 30% depth. Electrical incremental tuning system. In-built crystal calibrator. Tubes: 6AK5, 6X5G.

CARRIER DEVIATION METER Type TF 791C.

Carrier frequency range: 4 to 540 Mc. Modulation frequency range: 50 cps to 35 kc. Four direct-reading deviation ranges of 5, 25, 75 and 125 kc full scale. In-built crystal-controlled deviation standard for high measurement accuracy. Tubes: 6AK5, 6C4, 6CD6G, 5718, 6AL5, OB2, 5Z4G.

CARRIER DEVIATION METER Type TF 934/2.

A rugged pan-climatic instrument. Carrier frequency range: 2.5 to 500 Mc. Modulation frequency range: 50 cps to 15 kc. In-built crystal-controlled deviation standard for high measurement accuracy. Tubes: 6AK5, 6C4, 6AL5, 6X5G, OB2.

F.M./A.M. SIGNAL GENERATOR Type TF 1066/1.

Carrier frequency range: 10 to 470 Mc—all on fundamentals. Stability better than 0.0025% per 10-minute period. Output: 0.2 μ V to 200 mV at 50 ohms. Internal modulation at 1 and 5 kc. F.M. variable up to 100 kc deviation. A.M. variable to at least 40% depth. Incremental frequency controls: variable, 0 to $\pm$ 100 kc; stepped, $\pm$ 5, 10 and 15 kc. Tubes: 5Z4G, 6AK6, 6CD6G, 6AK5, 5861, 6C4, 6L6G, 12AX7, OB2, 85A2.

R.F. POWER METER Type TF 1152/1.

Measures true mean power from d.c. to 500 Mc. Power ranges: 10 and 25 watts full scale. Accuracy $\pm$ 5% of full scale up to 250 Mc; $\pm$ 10% up to 500 Mc. Input impedance: 50 ohms. Thermal element; no tubes or crystals.

SIGNAL GENERATOR Type TF 1064 and TRANSMITTER AND RECEIVER OUTPUT TEST SET Type TF 1065.

Self-contained portable instruments for field testing mobile transceive sets. Signal Generator TF 1064 provides r.f. outputs—f.m. or a.m.—in the ranges 68 to 174 and 450 to 470 Mc, i.f. crystal outputs at five spot frequencies, and also an a.f. output. Test Set TF 1065 comprises an r.f. power meter and deviation indicator for use up to 500 Mc, a dual-impedance a.f. power meter, and a multi-range voltmeter. Tubes: TF 1064—3A5, 6J6, 12AU7, OD3; TF 1065—crystal diodes and transistors, no tubes.

RIGHT
TYPE TF 913/3



RIGHT
TYPE TF 791C



LEFT
TYPE TF 934/2



RIGHT
TYPE
TF 1066/1



ABOVE
TYPE
TF 1152/1



LEFT
TYPE
TF 1065

LEFT
TYPE
TF 1064

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MIL-W-16878B — Types B-C-D-N
MIL-C-915 — Types SRI-MRI

Above constructions include P.V.C. Nylon or Polyethylene insulation, with or without Nylon Jacket. Also, shielded construction with P.V.C. or Nylon Jacket. Insulated in solid colors or stripes.

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Complete facilities for design and manufacture to customers specifications.

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Rex-KF® — MIL-W-12349. Insulated with Polytrifluoromonoethylethylene for 1000 volt service at operating temperatures from -65°C to $+175^{\circ}\text{C}$. 17 solid colors and 10 striping colors in 1, 2, or 3 stripes.

Teflon Insulated Wires — MIL-W-16878 — Types E — EE

For 600 and 1000 volt service at operating temperatures from -65°C to $+200^{\circ}\text{C}$. 10 solid colors and 10 striping colors in 1, 2 or 3 stripes.

COAXIAL CABLES

To MIL-C-17B and Commercial Specifications

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Type JR — 300 volt service
Type FJR — 1000 volt service
Both have exceptionally small OD and operate at temperatures from -50°C to $+125^{\circ}\text{C}$. Has solid polyamide insulation — highly resistant to abrasion.

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Types TF-TFF-AWM. 80° to 105°C .

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All plastic types. Exchange area (aerial, duct and direct burial). One pair distribution wire ("C" Rural), Rural Distribution Wire (all R.E.A. listed), Urban Distribution Wire, Inside Wiring Cable.

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REXOLITE #1422

Rigid, thermosetting cast plastic offering exceptional electrical properties at ultra-high frequencies. Can be machined to extremely close tolerances. Available in rod or sheet form.

REXOLITE #2200

Offers virtually the same high electrical properties as REXOLITE #1422 plus exceptionally high impact strength. Can be hot or cold punched for low cost fabrication. Available in sheet form only.

COPPER CLAD REXOLITE

An outstanding addition to the field of printed circuits. Combines the fine electrical properties of REXOLITE #2200 with good chemical resistance and punchability. Available in sheets with copper on one or both sides.

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REXTRUDE #105

A polyvinyl plastic tubing with exceptional insulating characteristics at high operating temperatures. Underwriters Laboratories approved and rated for -30°C to $+105^{\circ}\text{C}$.

REXTRUDE #1000

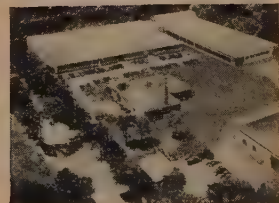
Vinyl plastic tubing to Military Specification MIL-1-631. Offers exceptional resistance to tear and abrasion. Has excellent elasticity permitting stretch over lugs and splices.

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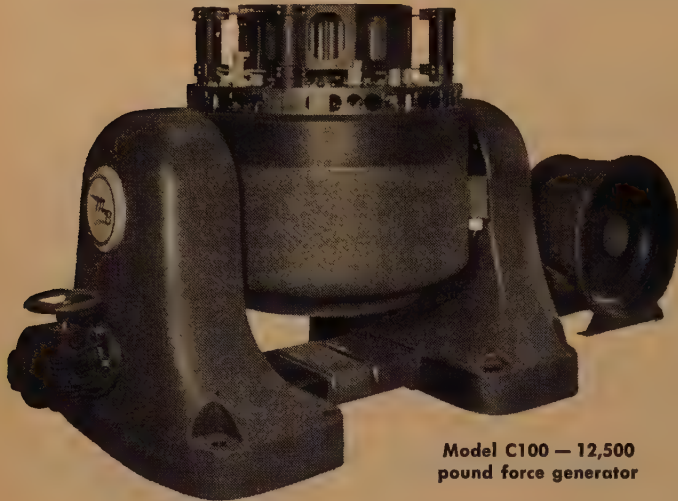
Vibration Testing and Control

MB MANUFACTURING COMPANY

A Division of Textron Inc.

1070 State Street, New Haven 11, Conn.

for vibration TESTING



Model C100 — 12,500 pound force generator

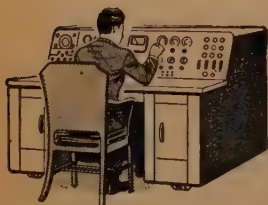
MB VIBRATION EXCITERS

MB electrodynamic-type shakers have the versatility, force output, and dependability necessary for test applications such as: (1) Fatigue testing components to destruction . . . (2) Locating noise sources in automobile bodies and chassis, blowers, etc. . . . (3) Shake testing electrical components, relays, switches, or radio chassis to

determine their ability to operate under high vibratory loads . . . (4) Determining the damping characteristics of rubber, steel, plastics, etc. . . . (5) Identifying resonant frequencies and (6) Determining natural modes of aircraft structures such as wings, fins, and control surfaces. Vibration tests to MIL-E-5272A and 41065-B and other specifications are performed easily on these exciters.

Complex Motion Testing MB has developed complete exciter systems to meet the requirements. They include amplifier, all necessary control equipment and circuits, and exciters with flat frequency response.

Automatic Control Systems for MB Vibration Exciters provide automatic control over table amplitude (displacement and acceleration) and frequency; manual control of either function also possible. Performance more than adequate to meet MIL-E-5272-A vibration requirements.



MB VIBRATION EXCITER SYSTEMS

Model	lbs. Sine Force	lbs. Peak Force (noise testing)	Total Stroke	Power Supply	Frequency Range cps
C8*	1.2 (also C7 sub-miniature tube tester)		1/2 in.	Electronic	20 to 10,000
SD	10		1/2 in.	Electronic	20 to 2,000
C31*	25		1/2 in.	Electronic	5 to 2,000
C1*	50		1/2 in.	Electronic	5 to 500
C11*	50		2 in.	Electronic	5 to 2,000
S6	150		1 in.	Electronic	0.35 to 500
C6	200		1 in.	Electronic	5 to 5,000
CSH	600		1 in.	Rotary or Electronic	2 to 2,000
C10	1,200	2,550	1 in.	Rotary or Electronic	5 to 3,000
C10VB	1,750	3,150	1/2 in.	Rotary or Electronic	5 to 5,000
C25H	3,500	7,500	1/2 in.	Rotary or Electronic	2 to 2,000
C25HB	5,000	10,500	1 1/2 in.	Rotary or Electronic	2 to 2,000
C70	7,000	15,000	1/2 in.	Rotary or Electronic	2 to 2,000
C100	12,500		1/2 in.	Rotary	2 to 2,000
C250	25,000			Rotary	2 to 2,000

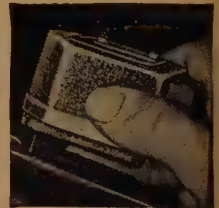
* Force generator or calibrator. Other models available.

for vibration MEASUREMENT

VIBRATION PICKUPS Sensitive to low-amplitude vibration, yet rugged for field test work. Electrically damped; maintain calibration over wide temperature range. Resonant frequency below 5 c.p.s. Over twelve types available for specific requirements. Type 122 for temperatures to 500° F; Type 115 probe-type for hand-held exploratory testing.



Type 122



Type 115

METERS MB Meters

are compact, portable units, designed for use with MB vibration pickups. They give direct readings of vibration acceleration, velocity, or displacement. Model M6, designed specifically for jet-engine testing, has three high-pass filter networks (cut-off at 30, 70 and 110 c.p.s.), push-button selection of four pickup signals. A.C. operated. Suitable for general test purposes.



Model M6

for vibration ISOLATION



ISOMODE* INDUSTRIAL-TYPE ISOLATORS — provide large deflection ratings with high load capacity, small size, and exceptional stability. Spring rate equal in all directions—mount at any angle—absorb vibrations for every plane. Unit load-range 50 lbs. to 2500 lbs.

MIL-I-5432 (AN-I-16a) is met with Isomode* Type 17 vibration isolators: Load range 1/2 to 100 pounds per unit. They feature equal spring rate in every direction.



MANY OTHER ISOLATOR TYPES available, including units for special applications; Isomode grommets; mounts with small dimensions. Contact us on your specific requirements.

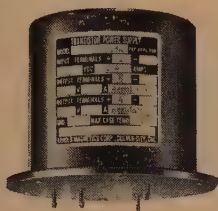
* Reg. U. S. Pat. Off.

ARNOLD regulated SWITCHING TRANSISTOR POWER SUPPLY

(DC-DC Inverter)

FEATURES:

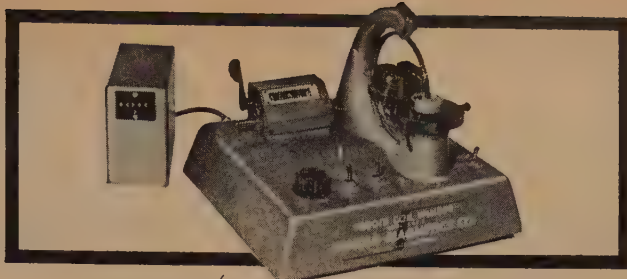
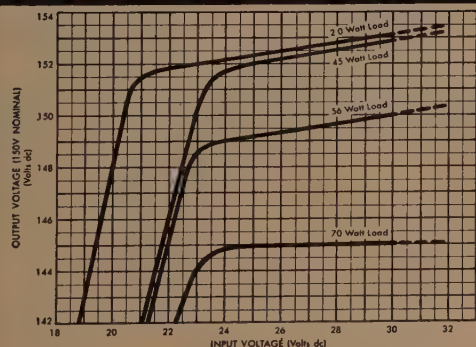
- 1) When used in missiles and aircraft, provides constant voltage output as battery discharges.
- 2) 1/5 weight of comparable dynamotors
- 3) 1/2 size of comparable dynamotors.
- 4) Utmost reliability for overloads and input voltage transients.
- 5) Hermetically sealed and potted, and will meet military environment.



SPECIFICATIONS: Model 591A

Input Voltage (Nominal)	24 to 30 volts DC (Lower voltages available)
Output Voltage	Any voltage from 25-1200 volts DC
Output Power	60 watts regulated
Regulation	(a) Line: $\pm 1/2\%$ for 4 volt variations of input voltage (b) Load: $\pm 2\%$ for variations half load to full load (c) Overall: $\pm 3\%$ for both line and load
Ripple	0.3% (RMS, 1KC-10KC, 0.5% peak to peak)
Size	3" OD x 3" high, weight 19 oz.

Model 591A is in production and is immediately available



ARNOLD / TOROIDAL COIL WINDER

*sets up quickly... easy to operate...
takes wide range of wire sizes*

SPECIFICATIONS:

- Min. finished hole size: .18 in.
- Max. finished toroid O.D.: 4.0 in.
- Winding speed: 1500 turns/min.
- Wire range: AWG 44 to AWG 26
- Dual, self-checking turns counting system
- Loading (wire length) counter
- Core range: 1/4" I.D. to 4" O.D. to 1 1/2" high

LABORATORY USE

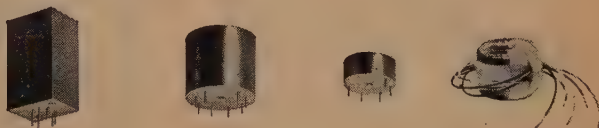
- Change wire and core size in 45 sec.

PRODUCTION USE

- 1500 turns per minute
- Insert core and load in 20 sec.

ARNOLD MINIATURE MAGNETIC AMPLIFIERS

and toroidal transformers



UNIT	MAGNETIC AMPLIFIER	MAGNETIC AMPLIFIER	TOROIDAL TRANSFORMER	MAGNETIC AMPLIFIER
Supply Voltage	50 volts, 400 cps	115 volts, 400 cps	20 microvolt (min.)	67 volts, 400 cps
Output Voltage* AC or DC	± 45 volts	± 110 volts	As Required	± 62 volts
Output Current	20 milliamperes	100 milliamperes	10 milliamperes (approx)	320 milliamperes
Control Current	0.8 milliamperes	6 milliamperes		10 milliamperes
Input Resistance	15 K ohms	1 K (Transistor Drive)	400 K ohms (400 cps) max.	1 K (Transistor Drive)
Size	0.95" x 1.12" x 1.87" high	1.59" OD x 1 1/4" high	1.06" OD x .47" high	1 1/4" OD x 1" high
Weight	1.8 oz.	3.1 oz.	0.51 oz.	1.9 oz.

*For Two Units In Self-Saturating Circuit (If single unit is used, output is unidirectional)

FEATURES Meets environment of MIL-E-5272-A and MIL-T-27
Employs Diallyl Phthalate Plastic Cases
Hermetically sealed by impregnation in epoxy resin

These production units are immediately available. If required, prototypes will be designed to meet your specifications.

write or phone for literature

ARNOLD MAGNETICS CORP.

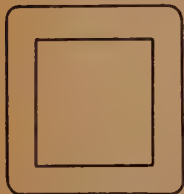
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MINIATURE RECORDING POTENTIOMETER

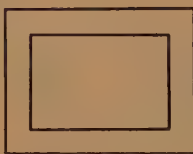
This revolutionary recorder saves you two ways . . . fits in a small space (only 9½ inches wide and 8½ inches tall) and costs less.



Model 2705



**COMPARE
THE
SIZE**



SPECIFICATIONS

- Null balance
- Pen speed: 1 second
- .5% accuracy
- TC or MV calibration (5MV to 100MV)
- Automatic continuous standardization
- Max source impedance
1000 ohms per MV of span
- .14% sensitivity

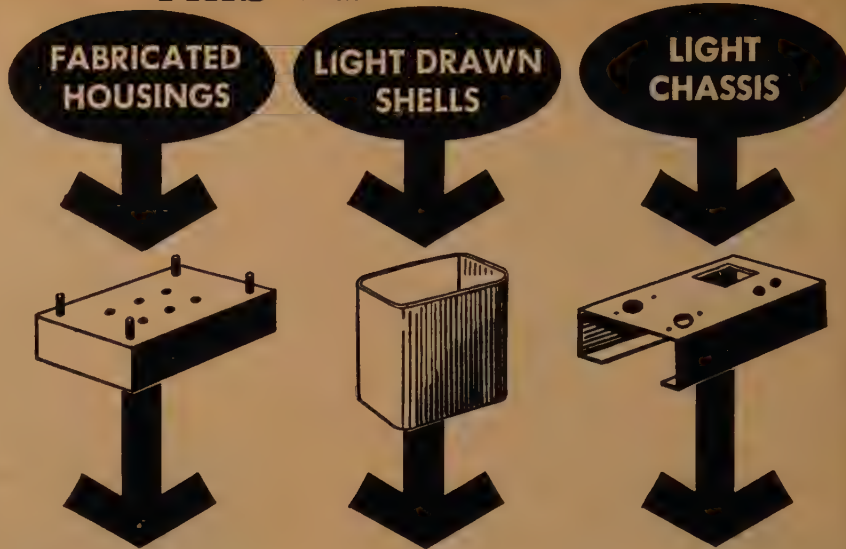
OPTIONAL FEATURES

- 3 speed chart drive transmission
- 1 to 4 SPDT adjustable control switches
- Reference junction compensation
- Selsyn motor chart drive
- Transmitting slidewire
- Event marking margin pens

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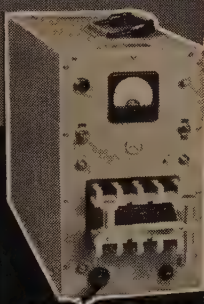
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MODEL 942

Recommended
by Leading
Magnet
Makers

3

**VERSATILE
MODELS**



MODEL 107A



MODEL 1221

For saturating Alnico magnets weighing up to 34 lbs. and high flux ceramic magnets of any shape or pole configuration. Operates on condenser discharge principle from regular 115-volt, 60-cycle line.

Charging outputs from 100,000 to 200,000 ampere-turns through plug-in transformers, up to 3600 watt-seconds using wire-wound fixtures. Adapters for multi-pole rotors, rod, bar, ring and various other shapes available. Designed for continuous production use with low power consumption. Price of basic unit is less than \$2100.

A basic condenser discharge unit for most medium size magnets, the Model 107A provides ranges of 12,000 and 24,000 ampere-turns. It is capable of saturating most instrument magnets, including the new core type mechanisms, using adapters or wire-wound fixtures. Designed for continuous duty. Operates from 115-volt, 60-cycle line. Price \$530.

A low cost, condenser discharge unit employing novel, plug-in wire-wound type charging fixtures, the Model 1221 is designed for the user of small magnets. Its 10,000 ampere-turn output will saturate about 2" of Alnico V. Charging cycle rate is approximately 3 seconds, continuous duty, operates from 115-volt line. Price \$180.

Performance of all models is rigidly guaranteed. Prices are net f.o.b. Boonton, N.J. and subject to change without notice.



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Full current capability at all voltage settings up to 100 volts • Voltages up
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AND . . . REGATRONs ARE REMOTELY PROGRAMMABLE
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...Customers' needs can be served
better than ever before in our new
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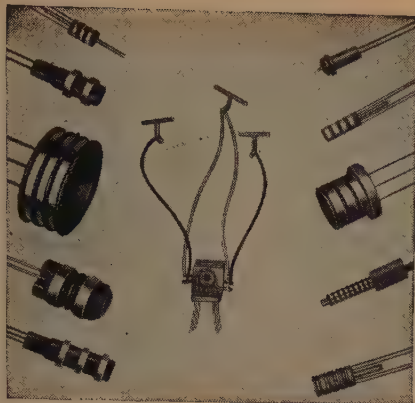
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Low cost, all-frequency di-electric for cores, covers, bases, insulators, separators, etc.

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Sizes	
Avail.	

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Unequalled di-electric & other properties from -320°F. to +390°F. Incomparable for ultra-high-duty service.

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Sizes	
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● POLYETHYLENE

Versatile, multi-purpose, flexible di-electric with constantly expanding horizons of usage.

† Stock	Rod—1/16" to 7" dia. Sheet—0.002" to 30.0" thk. Tubing—0.010" to 20" I.D.
Sizes	
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● (†) SPECIAL EXTRUSIONS and MOLDINGS

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As a manufacturer of precious metal products for more than 144 years, THE J. M. NEY COMPANY has accumulated a vast store of information on the properties and uses of precious metals and their alloys in many fields. Ney's Research Department has facilities for subjecting experimental and standard alloys to a full range of chemical, physical, electrical, mechanical and metallographic tests as well as tests simulating actual and accelerated conditions. Ney Research Department services and facilities are freely available to Design and Production Engineers.



Potentiometer linearity and life test instrument using standard oscilloscope.

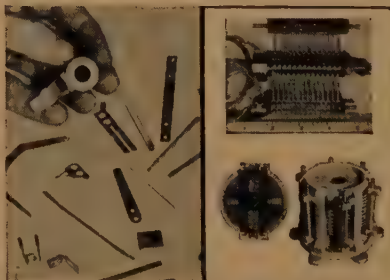
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Ney has just built this modern new plant to give you even better products and better service. Ney manufacturing facilities include wire drawing equipment, two and four high rolling mills, punch presses up to 50 tons, automatic screw machines up to 1½" capacity, cold-heading, wire-forming, welding and soldering equipment and a complete tool room. Efficient organization of these facilities means economical handling of large or small quantity production of the simplest part or the most intricate assemblies.

PRODUCTS TO YOUR SPECIFICATIONS

Ney has a long list of important accomplishments in the development of sliding contacts, slip rings and assemblies, commutator segments and assemblies, brush and brush holder assemblies, and precious metal resistance wire. Ney engineers are available for consultation on all problems involving the use of precious metals to improve your products.



Write for your copy of Ney Data Book, "NEY PRECIOUS METALS" (Bulletin R-12) or call our Engineering Department outlining your needs.

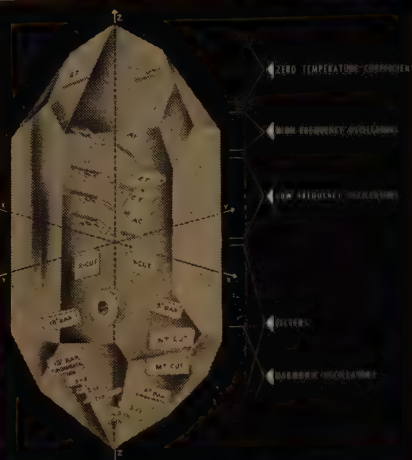
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Precision Multichannel switches qualified for use in many commercial, military and scientific ground installations.

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Precision Multichannel switches qualified for under ground instrumentation such as for deep oil well instrumentation and measurements.

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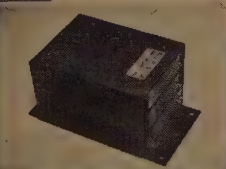
Precision Multichannel switches qualified for military and commercial ship borne use for operational and investigational applications.

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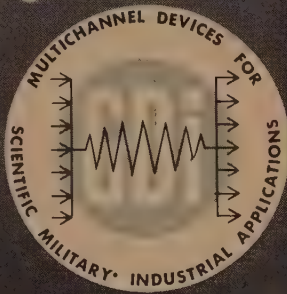
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please mention *Electronic Buyers' Guide*.

June, 1957 — MID-MONTH — ELECTRONICS BUYERS' GUIDE

VALPEY

Quartz Crystals and Ovens



RAFTSMANSHIP IN CRYSTALS SINCE 1931



TYPE VR6

COMMERCIAL
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Hermetically sealed in compact metal case . . . frequency range 175 Kc to 100 Mc . . . JAN Type HC-6/U. Pin 0.050" dia., spaced 0.486".



TYPE VR13

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AND
MILITARY

Hermetically sealed in compact metal case . . . frequency range 16 to 175 Kc . . . JAN Type HC-13/U. Pin is 0.050" dia., spaced 0.486".



TYPE VM6

COMMERCIAL
AND
MILITARY

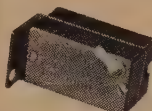
Midget unit with wire leads or .040" dia. pins hermetically sealed in compact metal case . . . frequency range 5 to 125 Mc . . . JAN Type HC-18/U.



TYPE XL100

FREQUENCY
STANDARD

100 Kc used extensively in frequency standards. Mounts in 3/4" crystal socket or standard 5-prong socket.



TYPE DFS

FREQUENCY STANDARD

Features separate 100 and 1,000 Kc crystals in same case . . . accuracy ± 0.005 percent from -10 deg. C. to +60 deg. C., when used in recommended circuits.



TYPE CM5

AMATEUR
AND MARINE

Frequency range 1,000 to 30,000 Kc. Fixed air gap, standard 0.486" x 0.093" or standard octal socket. MIL FT 243.



TYPE CM1

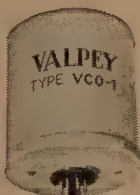
COMMERCIAL,
MILITARY
AND MARINE

Fixed air gap design, frequency range of 800 to 30,000 Kc. Available in standard 3/4" and G.R. 3/4", 5/8", 7/8" or 0.850" spaced pins . . . JAN Type HC-1/U.

Ovens

TYPE VCO-1

CLOSE FREQUENCY OVEN
Temperature controlled oven . . . mounts two VR6, VR13, CM1, or CM5 crystals. Heater, 18 watts . . . for 6, 10, 28 or 115V. Fits standard octal socket . . . with pilot lamp connection to thermostat.



TYPE VCO-2

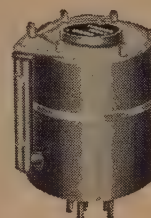
CLOSE FREQUENCY OVEN
Temperature controlled oven . . . mounts two JAN HC-6/U, HC 13/U, VR13 or VR6 crystals. Heater, 4 or 6 watts . . . for 6, 12.6 or 28V. Fits standard octal socket . . . with pilot lamp connection to thermostat.



TYPE CBC-O

FOR BROADCAST
EQUIPMENT

Frequency range . . . 60 to 10,000 Kc. Available for 6, 8 or 10V operation . . . temperature stability to ± 0.5 deg. C. Fits standard 5-prong socket.



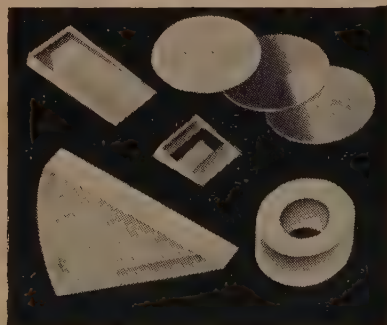
CRYSTALS FOR ULTRASONIC, DELAY LINES AND OPTICAL APPLICATIONS*

GENERAL SPECIFICATIONS:

Diameter:
 ± 0.001 " of specified diameter
Polish:
Optical pitch polish, free from scratches or pits
Edges:
Free from chips and incipient fractures
Flatness:
Flat to 0.000020"
*And other specialized applications

Parallelism:
Parallel to 0.000050"
Plating Metals:
Chrome and gold
Chrome and silver
Chrome and aluminum
Chrome
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SENSITIVE RF VOLTMETER

- Range: .001 volt to 3 volts
- Freq. Range: 50KC—500MC
- Accuracy: 5% to 200MC, 10% to 500MC
- RMS response below 0.1 volt
- High impedance probe
- 52 ohm probe: vswr 1.1
- 0.1 to 300 V probe adapter available

MODEL 91B

PRICE \$375.00

THREE TERMINAL CAPACITANCE BRIDGE

- Cap. Range: .001 mmf to 11,000 mmf
- Approx. accuracy: $\pm(0.25\% + .001 \text{ mmf})$
- Measures direct or grounded capacitance and conductance
- Test voltage variable from .02V to 2V.
- Ideal for temperature coefficient measurements
- Self contained oscillator and detector
- Particularly suited for semi-conductor, vacuum tube, transformer, and cable capacitance measurements



MODEL 74C
PRICE \$850.00



MODELS: 85B and 85C
PRICE \$675.00

RF DISTORTION METER AND VOLTMETER

- Freq. Range: Model 85B, 1 to 100 MC
Model 85C, 0.1 to 6 MC
- Sensitivity: 60DB below 1 volt
- Accuracy: $\pm 2\text{DB}$
- Input Impedance: approx. 50 ohms
- Fast, easy operation
- Same Voltmeter features as 91B above

UHF GRID DIP METER

- Widest freq. range: 300 to 1000 MC
- Small, lightweight probe
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- Very stable oscillator
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MODEL 101B

PRICE \$275.00



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puts the accent on sub-miniaturization with this wider line of precision manufactured products...



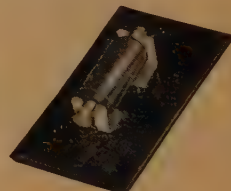
Vibration and Shock Clips

An even greater line of miniature and sub-miniature component holders and locking clips to provide positive holding under extreme conditions of shock and vibration. Send for bulletins 1 and 7.



Subminiature Tube Holders

Afford rigid mounting under heavy shock and vibration, rapid heat dissipation, flexible conformity to tube envelope. Bulletin 8. Vertical holders for printed circuitry and other limited-space mountings. Oval tube holders for oval shaped tubes and other oval cross-section components. Bulletin 8a.



Transistor and Diode Clips

For secure holding of transistors and diodes of all types and sizes under extreme conditions of heat, vibration and shock.

Diode Clips — Bulletin 9.

Transistor Clips & Heat Sinks — Bulletin 10.

Tab-mounted Clips

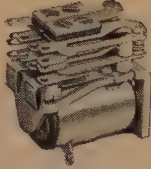
Designed for automatic assembly and Printed Board use. Tabs are spaced for 0.1" grids. Provide adequate holding of components against shock and vibration. Bulletin 33.

**ATLAS E-E
CORPORATION**
47 PROSPECT STREET, WOBURN, MASS.
3757 Wilshire Blvd., Los Angeles



**Sub-miniature
Relay — DPDT
Style 506**

Meets requirements of MIL-R-25018 (USAF) for a general purpose relay for aircraft and missile use. Standard coil for 26.5 VDC operation. Special design, for low-level circuit use, permits isolation of all organic materials from contact chamber.



Series 5400

Improved design withstands in excess of 10 G vibration through 500 cycles. Contacts rated at 3 amps. at 24 VDC or 115 VAC, non-inductive. Available with higher contact ratings.



Series 5700

One of a complete line of multi-leaf relays from midjet to long-frame types. (Open styles available.)



Series 8200

200-amp. high shock relay for aircraft and missile use. Temperature range from -65 C. to +125 C. For operation from DC only.



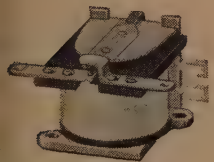
Style 6351

Designed for use in 52-ohm transmission line. Supplied with 3 UHF fittings. Available without auxiliary contacts as style 6350.



Series 2100

Designed for military and commercial needs. Two frame sizes providing up to 6 PDT. Contacts rated at 15 amps. at 24 VDC non-inductive. DC relays are available for voltages up to 120. AC relays up to 250 V 50/60 cycle.



Series 1000

Small, light, efficient relays for many uses. SPDT contacts rated at 1 amp. at 50 VDC. Maximum voltage 24 VDC. Available hermetically sealed.

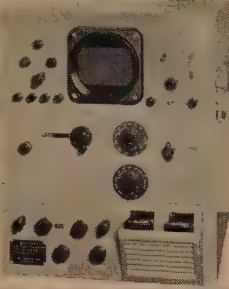
The complete Husky line contains relays designed to meet most needs. If you have a design problem, send us your specifications for engineering review.

Write for literature and specifications.

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Price Electric
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CO-AXIAL SWITCHES, MICROWAVE TEST EQUIPMENT and PRIMARY POWER STANDARDS



PULSE POWER CALIBRATOR

MODEL PCX-1 PULSE POWER CALIBRATOR is an extremely precise instrument for calibrating pulse power measuring devices in the 925- to 1225-mc frequency range and for measuring power between -10 and +63 dbm to within 0.5 db. It is the first in a series which includes similar calibrators designed for the 3000-mc, 5000-mc and 9000-mc bands.

This equipment employs a new method which permits far greater accuracy (other than calorimetric) than heretofore achieved. It establishes a measurement reference level at the time of each use. Ease of operation is assured by the notch-and-reference-line display, by the automatic centering of pulses on the display, and by the direct reading of power measurements.

The removable bisecting cover, frame construction, hinged and pivoted subchassis assure easy accessibility for servicing.

MANUAL CONTROL SWITCHES

Compact, lightweight—available in Radial; parallel connector configuration.

GENERAL CHARACTERISTICS

Frequency Range: 0 to 10,500 MC. VSWR: 1.2:1 max. at 3000 MC. Insertion Loss: 0.3 db max. Crosstalk: greater than 60 db at 3000 MC, greater than 40 db at 10,500 MC. Operation Life: 10,000 cycles, min. Construction: weatherproof. Connectors: N, BNC, C, HN, BN, LN. Positions: 2, 3, 4 and 6: single and double pole. Easily adaptable for specialized usage.



REMOTE CONTROL SWITCHES

28 V. DC., 110 V. DC.—Compact, lightweight—available in Radial, spring return; Radial, transfer; parallel connector configuration.

115 V. AC., 60 cycle.—Compact, lightweight—available in Radial, spring return; parallel connector configuration.

GENERAL CHARACTERISTICS—See Above

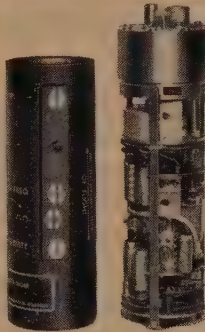


"S" BAND BEACON — Model RCX

Radar Beacon RCX is a miniature S-band transponder equipment for use in tracking missiles, drones and other types of aircraft. It has greater selectivity and sensitivity than the Model RBX (below) and can be used as a transmission medium for telemetering information from auxiliary systems. Many new and unique features make it a reliable and versatile equipment, keeping pace with the current progress in the guided missile field. The equipment includes Receiver-Transmitter RCX-1, Power Supply RCX-2, Junction Box RCX-3 and the necessary interconnecting cables and mounting brackets.

PERFORMANCE CHARACTERISTICS

Receiver Selectivity: a 3-cavity preselector; ± 3.5 mc at -3 db; ± 15 mc at -40 db (including X-band rejection filter. Receiver Sensitivity: -45 dbm. Receiver Codes: (a) Single pulse 0.25-usec duration or greater; (b) Double pulse 0.25-usec duration, 3-usec spacing; (c) Double pulse 0.75-usec duration, 10-usec spacing. Environmental Ratings: will withstand 200 G's acceleration and 400 G's shock.



"S" BAND BEACON — Model RBX

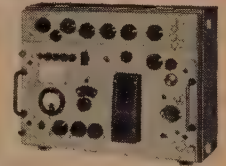
A highly miniaturized receiver-transmitter for missile applications to facilitate radar tracking. Supplied with power supply, cable and antenna (not shown).



"X" BAND TEST EQUIPMENT

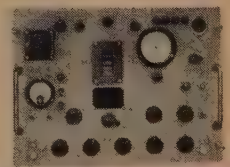
TEST SET BHS (AN/UPM-10A)

A portable microwave signal generator for testing and adjusting beacon equipment and radar systems operating in the range of 8500 to 9600 MC. Measures power and frequency of external signals. Supplies pulse-modulated, square-wave-modulated or unmodulated signals of known power and frequency. Also supplies frequency-modulated signals.



NEW! MODEL BDX FOR GREATER ACCURACY

Greater frequency accuracy (± 1 mc from 8500 to 9600 mc). Greater power level accuracy (± 1.5 dbm without correction curves). Repetition rates high enough to measure recovery time with assurance (up to 50,000 PPS). Operates with or without an auxiliary trigger. More rugged and dependable. The only complete signal tester for beacon work.



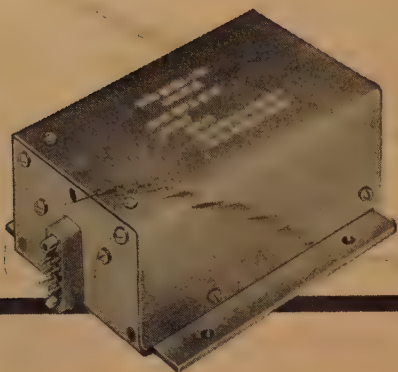
GENERAL COMMUNICATION COMPANY

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When ordering or seeking information
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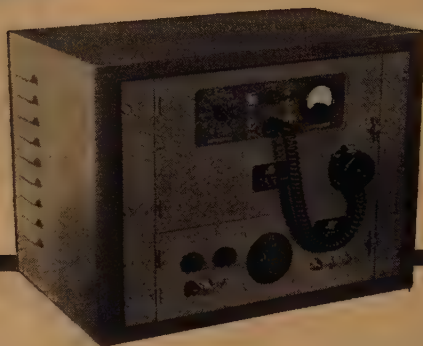
VARO

**Airborne and ground control
precision electronic equipment
for commercial and military
applications**



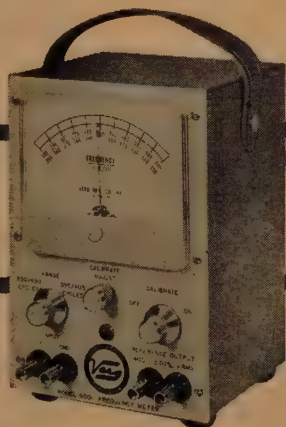
TRANSISTOR INVERTERS

A static means of changing DC or coarse frequency AC to precision frequency—features tuning fork accuracy and voltage regulation.



TEL-AIR VHF RADIO TELEPHONE

A complete VHF radio telephone for ground-air communications. Fulfills the need for a low-cost radio installation which incorporates modern methods of construction, reliable components, and dependable performance characteristics.



FREQUENCY METERS

A compact precision laboratory 400 cps frequency standard and frequency meter with calibration accuracy of .02%.



FREQUENCY STANDARDS

Frequency Generators — Completely transistorized, 0.1% accuracy independent of input voltage variations and external loads.

Tuning Forks — Miniaturized, accurate frequency or timing reference from 300-4000 cycles.

ADDITIONAL ELECTRONIC EQUIPMENT MADE FOR MILITARY AND COMMERCIAL USE

Frequency Meters Voltage Regulators
Voltage and Frequency Sensitive Relays
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Complete VHF Communications Stations
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VICTOR DIGITAL PRINTERS • DATA PROCESSING MACHINES

Digit-matic

HIGH SPEED SERIAL AND PARALLEL ENTRY DIGITAL PRINTERS

Digit-matic Printers are basic adding, multiplying, or calculating machines equipped with electrically actuated keys. Figures can be entered into the machines electrically and at high speeds. Digit-matics can be used with paper tape punches and readers, punched tape typewriters, electronic counters, digital testing equipment, analog to digital devices, time interval meters, pulse height analyzers, digital scalars, production counters, and Integrated Data Processing office applications as automatic invoice calculating, purchase order extensions, account selection and totaling. Both parallel and serial Digit-matics are constructed to provide a long trouble-free life. Wearing surfaces are heat treated and cyanide hardened to insure long life. All steel parts are protected by heavy cadmium plating to prevent rusting. Digit-matics are approximately 9½" wide, 7½" high and 14¾" long. Weight is approximately 26 lbs.

SERIAL ENTRY DIGIT-MATICS: basic 10 keyboard adding machines having numerical keys, 0-9. Digits are entered in sequence starting with the most significant digit. Available

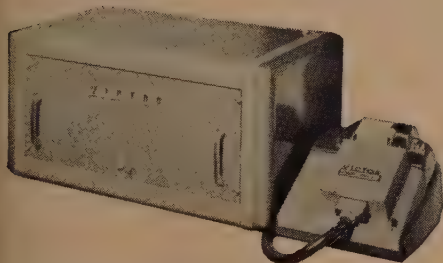


as: *Lists*—where printing only is required, *Accumulators*—where addition, subtraction and printing are required, *Multipliers*—for addition, subtraction, multiplication and printing, *Calculators*—for addition, subtraction, multiplication and division as well as printing.

PARALLEL ENTRY DIGIT-MATICS: basic full keyboard adding machines. All columns are equipped with a set of 1 through 9 keys, each of which has a solenoid for electrical actuation. Available as: *Lists*—where printing only is required, *Accumulators*—where addition, subtraction, and printing are needed.

For complete information write for Data Sheet A-71-2.

MODEL V-300-10 TRANSLATING MATRIX



Model V-300-10, for those requiring sweepout unit, accepts each number from up to 10 Decimal Counting Units or a parallel switching matrix, and

after decoding causes them to be printed by the serial type Digit-matic. Output signals, indicating that the Digit-matic has completed its printing, are furnished. A power supply for the Digit-matic is also included. Designed for rugged, reliable trouble-free operation, only top quality components, such as mercury wetted contact type relays are used. Multivibrator time generator is employed to provide reliable uniform scanning.

SPECIFICATIONS:

Number of input columns: Up to 10 (larger capacities on special order) • Input signals: (a) coded digits—0 to 10

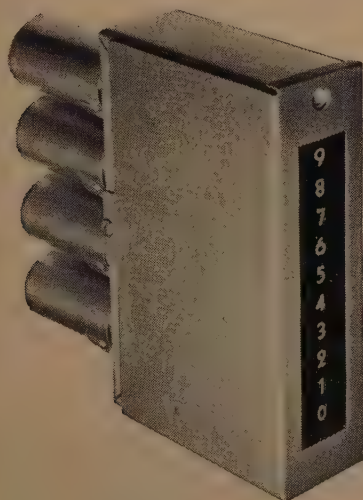
volts from D.C.U.'s (input loading 100,000 ohms, 1-2-2-4 code.)

Outputs: (a) A relay contact normally closed to ground is opened (can be used to reset Decimal Counting Units) during the time the Digit-matic is line printing. (b) 150 volts (120 K ohms) is present during the time the Digit-matic is line printing • Cycle time: Approximately 1 second for complete 10 digit scan and line printing • Power Requirements: 110-120 V, 60 cps AC, 150 Watts • Tube complement: 3-5963; 2-5687 • Fusing: 115 volt AC line and solenoid circuit.

For complete information write for Data Sheet A-84.

ADD-TRACTOR

New adding and subtracting Decimal Counter with electrical output offers simple solution to control problems and arithmetic calculations of all kinds. Physically similar to the familiar deci-



mal counting unit, the ADD-TRACTOR has ability to complement its stored value in 10 microseconds. It can accept digital information serially, as a unitary pulse train, or parallel in binary coded decimal form. Unitary and binary coded decimal electrical outputs permit the calculating of all kinds of arithmetic problems and provide a means of control for industrial processes. Logical outputs of "less than", "equal to" and "more than" can be easily provided. In addition to functioning as an accumulating register, it can also be operated as a left and right shift register.

APPLICATIONS: counting, summing and subtracting, servo control, net

weighing, digital position control, ratio control, subtractive mixing, frequency deviation measurement, random events difference counter, computer arithmetic elements, and in special machines for such purposes as inventory control, etc.

SPECIFICATIONS:

Count indication: Direct reading, decimal presentation • Power requirements: 6.3V A.C. @ 1.2A., 300 V D.C. @ 16 Ma. • Unitary pulse train input maximum count rate: 100,000 pulses/second • Unitary pulse and complementing inputs: Negative pulse, 90±10V. Fall time—Less than 1 microsecond. Duration—At least 2 microseconds.

For complete information write for Data Sheet No. A-2-1.

VICTOR ADDING MACHINE CO.

3900 North Rockwell Street, Chicago 18, Ill.

KEystone 9-8210

Victor-McCaskey Ltd., Galt, Ontario

Manufacturers of Business Machines, Cash Registers, Business and Industrial Systems, Electronic Equipment, Electri-Cars.



GREEN

Model D-2

Pantograph Engraver

Unique design of the two-dimensional Model D-2 features — Single micrometer adjustment controls vertical depth of cut, and adjusts height of copy table and pantograph.

Range of ratios from 2 to 1 to infinity!

Accessibility on three sides permitting panels up to 30" diameter to be engraved, milled or profiled. Vertical range over 10" allowing operations on complete chassis, cabinets or other bulky objects. Ruggedness, stability and precise accuracy inherent in construction.

Mounted on the ruggedly constructed heavy duty steel Green Engraver Bench. All functional parts are conveniently within reach of the operator while seated. Accessibility of master type sets stored in lower cabinet trays, tools and accessories contribute to productive capacity.

A brochure with full details is yours upon request.

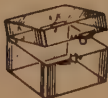
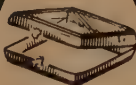
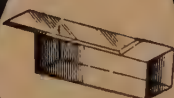
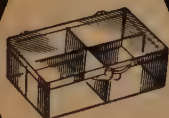
Literature also available on the smaller Model 106 three-dimensional engraver.

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Record full range of your electronic signal outputs—monitor processes and operations directly and instantaneously on Alfax Paper —no pens or ink—up to 17 step permanent tone shades.



Magazine Fact Finder—2 Channels Plus Timing

Here is a compact Magazine Recorder which will permanently record two separate operations and automatically print a recurring time signal on the Alfax Tape. Simple to install—they will operate unattended —remotely or on the spot.



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Record thirty channels of on-off data by merely supplying current to writing stylus—no pens or inks—simple motion switches are easily installed to make or break writing current to Alfax Paper. Ideal for monitoring production operations and processes, this compact, rugged recorder is portable for lab, factory and field use.



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Get hi-resolution tone shade recordings on Alfax Paper of detecting instruments using scanning or sweep methods to collect data. Synchronize Alden "Flying Spot" with sweep or rep. rate of your equipment—use direct signal outputs to mark Alfax with tone shades proportional to signal variations. Ideal for sonar, radar, facsimile, ultrasonic and magnetic flaw detection etc.



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New high and low speed Alden facsimile recording systems using Alfax Paper are the most accurate means of communication today —are simple to install and operate virtually unattended.



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Specially designed to permit selection of pertinent data from any copy — letters, dispatches, reports, etc. — for instant transmission to wherever needed—yet complete reproductions can also be sent. 72 square inches of copy, 1800 words of newspaper type, or 900 words of typewriter text can be transmitted and received per minute.



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Extremely high quality reproduction of large copy: such as newspapers, weather maps, blueprints, finished advertising layout, drawings, photographs, etc., can be transmitted easily with this equipment. Copy is scanned flat and reproduction automatically on remote continuous recorder.



Alden Giant Bulletin System

Fastest, accurate means of disseminating information to large groups of people. Automatically provides changing "up to the minute" bulletins 4 feet wide and up to 10 feet high and as much as 12 square feet of copy per minute, enlarged 10 times from remote flat-copy scanner as sent either by wire or a microwave system.

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Design your Electronic Equipment for Reliability in Service with Alden Components for Plug-in Unit Construction

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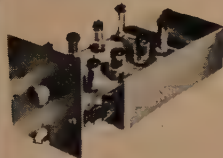


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Simplifies and speeds your planning and layout. Organizes your circuitry function-by-function in compact planes for easy mounting and accessibility for servicing. Complete component service provides you with Planning Sheets, pre-punched cards, terminals, card-mounting sockets, terminals and brackets.



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Provides ultra-compact mobile housing for your Alden Basic Chassis. Takes up to 3 levels of Plug-in Chassis in combinations of 2", 4", 8" or 17". Ideal for instrumentation, test gear, etc. Has line cord and fused switch panel.

MONITOR EACH CIRCUITRY FUNCTION



ALDEN FRONT PANEL "TELL-TALES"

Monitor your on, off, continuous or cycling functions with tiny Alden Pan-i-Lites. Ultra-bright, wide visibility. Five colors, five voltages, Push-in or saddle mount.



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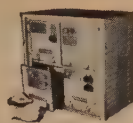
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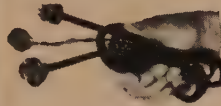
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A whole series of new high reliability connectors. Leads and contacts are integrally molded in a single shot of insulation carefully selected for its mechanical and electrical characteristics. A patented feature allows the use of highly resilient, long life punch press contacts. Available in a variety of standard types and layouts.



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Here's a standard series of pre-wired assembled connectors from one to 11 contacts, phenolic insulated. Leads are "top-connected" for positive strain relief to resilient long life punch press contacts. Just specify connector, lead lengths, and we assemble.



TUBE CAP CONNECTORS

Available in phenolic or integral molded assemblies in a variety of insulations with or without integral molded circuit components such as resistors, condensers, corona shields, etc. Leads are tailored to your specs so that complete assembly is ready to put into your equipment.

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For quality equipment — 2 and 3-wire UL listed cord sets. Unit molded male and female ends are neat, compact. Chassis connector eyelets in for fast assembly — eliminates need for UL knots, grommets,



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VARNISHED CAMBRIC—Straight cut for application to regular smooth surfaces; bias for irregular surfaces. Supplied in all standard sizes and thicknesses, in yellow or black and in greasy, mica-dusted, or dry finishes. Yellow has higher resistance to mineral oils and is therefore used extensively in oil immersed apparatus; black has better electrical qualities and is therefore recommended for applications where dielectric strength, power factor and preservation of these qualities even under humid conditions is important. Natvar varnished cambric is manufactured to conform to the latest revisions of NEMA Standards and A.S.T.M. Specifications. Full width rolls, 25 yd. and 50 yd.; sheets, 36" x 36" and 24" x 36", standard; other lengths and sizes on special order.

VARNISHED CAMBRIC TAPE—Straight cut or seamless bias, in all standard widths and thicknesses, yellow or black, greasy, mica-dusted or dry. Characteristics same as for varnished cambric. Accurately slit for use in taping heads. Standard lengths 36 yd. and 72 yd. rolls.

VARNISHED CANVAS AND DUCK—Recommended for applications where electrical insulation is subject to severe mechanical strain and abuse. Widely used as phase insulation in rotating machines. These high strength fabrics are coated with the same high grade varnishes as Natvar varnished cambric. Full width rolls, 25 yd. and 50 yd.; sheets 36" x 36" and 24" x 36", standard; other lengths and sizes on special order.

VARNISHED SILK—Thin, high dielectric strength insulation with great flexibility and mechanical strength. Particularly applicable to relays, magnetos and other components used in airborne equipment, where space and weight are important considerations. Available in yellow only; finish, dry. Full width rolls, 25 yd. and 50 yd.; tapes, 25 yd. and 50 yd.; bias cut strips approximately 51 in.; standard; other lengths on special order.

VARNISHED RAYON—Developed as an alternate for varnished silk, and used in substantially the same applications. High tensile and dielectric strength with exceptional smoothness. Available in yellow only; finish, dry. Full width rolls, 25 yd. and 50 yd.; tapes, 25 yd. and 50 yd.; bias cut strips approximately 51 in. standard; other lengths on special order.

VARNISHED FIBERGLAS—Class B insulation (130°C) used primarily to insulate equipment which operates at temperatures above the normal safe working range of varnished cambric. Permits higher current densities with consequent reduction in size and weight. Has great mechanical strength and excellent dielectric properties. Available in standard weave or open-weave; yellow or black; in all standard commercial sizes and thicknesses; standard finish, dry; mica-dusted on specification. Full width rolls, 25 yd. and 50 yd.; sheets, 36" x 36" and 24" x 36"; tapes, 36 yd. and 72 yd.; standard; other lengths and sizes on special order.

ISOGLAS—For higher continuous operating temperatures (150°C). Consists of glass fabric coated with newly developed isocyanate type resin. Has outstanding resistance to heat, to crazing and cracking, and to solvents including the askarels. It is tough and has excellent abrasion resistance, wet dielectric strength, low temperature flexibility and fungistatic qualities. Full width rolls (approx. 36"), 25 yd. and 50 yd.; standard; slit tapes also available.

SILICONE VARNISHED AND SILICONE RUBBER COATED FIBERGLAS—Class H insulation (180°C) used wherever reduction of size and weight are vitally important. Retains its excellent mechanical and dielectric properties at higher temperatures. Full width rolls, 25 yd. and 50 yd.; tapes, 36 yd. and 72 yd.; standard; other lengths on special order.

VARNISHED PAPERS—Chemically inert rope and kraft stocks selected for uniform thickness, tensile and dielectric strength and coated with highest grade electrical varnish. Yellow varnished condenser type tissues, single or multiple ply; yellow or black varnished heavy papers, single ply. Full width rolls, single ply, 25 yd. and 50 yd.; multiple ply, 25 yd.; sheets, 36" x 36" and 24" x 36"; tapes, 36 yd. and 72 yd.; standard; other sizes and lengths on special order.

COMBINATION INSULATIONS—Slot cell insulation is a combination of 100% rag paper stock firmly cemented to a layer of varnished cambric, either straight or bias cut. The high dielectric strength and moisture resistance of rag paper make a slot insulator which will withstand pounding and chafing without impairment of its electrical properties. Available in black and yellow; full width rolls, 25 yd. and 50 yd.; sheets, 36" x 36" and 24" x 36", standard; other lengths and sizes on special order.

Aboglas® insulation is a new class B insulation (130°C) consisting of a layer of varnish saturated asbestos paper sandwiched and securely bonded between two layers of varnished open-weave Fiberglas. It is less expensive than mica combinations and does not flake. Excellent resistance to breakdown even under extreme heat, moisture, abrasive dust, oil and grease. Standard sheets approximately 36" x 36"; other sizes on special order.

Other duplex and triplex composite insulations such as silicone coated Fiberglas, Quinorgo, Mylar, etc. are also available.

FLEXIBLE TUBING AND SLEEVING

VINYL COATED OR VARNISHED—Electrical grade rayon (Class A) or Fiberglass (Class B) braid coated with high grade electrical varnish or specially formulated vinyl base plastic compound. Standard lengths, 36"; vinyl coated also available, #24 to #15 in 500' coils; #14 to 4 in 100' coils. Pieces 3/8" or longer cut to specification.

ISOGLAS®—Tubular glass braid coated with newly developed isocyanate type resin (150°C). Same properties as Isoglas fabric. Standard lengths, 36".

EXTRUDED PLASTIC TUBING AND TAPE

NATVAR 400 VINYL TUBING AND TAPE—Natvar 400, for applications requiring high resistance to both heat and oil, is approved by Underwriters' Laboratories for continuous operating temperatures of 105°C. It remains flexible under continuous operation immersed in hot oil. It is a well balanced plastic that is tough, elastic, flexible, resistant to abrasion and tear, inert and resistant to ozone, oils, waxes, alkalies, acids and most solvents. Available in transparent, black, opaque white, yellow, red, green, blue, brown, and gray. Tubing is stocked #24 to #15 in 500 ft. spools; #14 to 1/2" in 100 ft. coils; 3/16" to 1 1/4" in 50 ft. coils; 1 1/2" and larger in 25 ft. coils; cut pieces 3/8" or longer on specification. Tapes, standard length, 36 yd.; standard color, black.

NATVAR 200 VINYL TUBING—Natvar 200 is a general purpose tubing with excellent flexibility through a temperature range of -40°C to +85°C. Will not support combustion. Shows no disintegration or flaking when immersed in oil. In general has the same inherent characteristics as Natvar 400, but slightly higher tensile strength, averaging 3600 p.s.i. Stocked in same lengths and colors as Natvar 400. Cut pieces 3/8" or longer furnished on specification.

NATVAR STYROFLEX® FILM—Specially processed flexible polystyrene film developed for insulation of UHF coaxial cables and capacitors. Excellent mechanical and electrical properties. Available in thicknesses .0004" and thicker in precision cut tapes up to approximately 10" width.

EXTRUDED PRINTED MARKERS

Printed with indelible vinyl ink on Natvar extruded tubing cut to specified lengths. All combinations of letters, numbers, and symbols available for identification of circuits, terminals, airplane electrical systems, etc. Wide color range for coding.

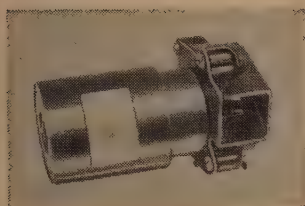
SPECIAL PRODUCTS

In addition to Natvar standard products, there are many Natvar products developed for a special application. These materials, now in limited production, are available on special orders.

Where specifications call for materials with special mechanical or electrical characteristics, check with our representative in your area, or directly with us. If the materials you are looking for are not already in production, our engineers will be glad to work with your engineers to provide a practical answer.

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C 2364-1
Voltage 115 V
Frequency 400 cps
Phase Single
Air Delivery 12 CFM @ 0" S.P.



C 15G-1
Voltage 115 V
Frequency 400 cps
Phase Single
Output 50" oz. at 21 RPM



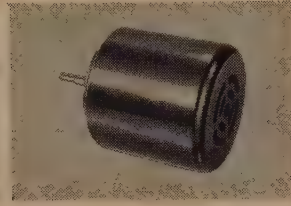
A 15BD-11
Voltage 115 V
Frequency 60 cps
Phase Single
Air Delivery 70 CFM @ 0" S.P.



B 1324-1
Voltage 115 V
Frequency 60 cps
Phase Single
Air Delivery 125 CFM @ 0" S.P.



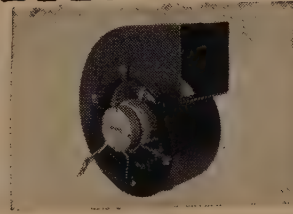
M 06C-1
Voltage 115 V
Frequency 400 cps
Phase Single
Speed 11,000 RPM



B 10CF-3
Voltage 208 V
Frequency 400 cps
Phase Three
Speed 5600 RPM



B 1221-7
Voltage 115 V
Frequency 60 cps
Phase Single
Speed 3400 RPM
Air Delivery 495 CFM at 0" S.P.
305 CFM at .4" S.P.



F 1343-1
Voltage 208 V
Frequency 60 cps
Phase Three
Air Delivery 720 CFM at 0" S.P.



C-2241-2
Voltage 115 V
Frequency 400 cps
Phase Single
Air Delivery 140 CFM @ 0" S.P. NAFM
48 CFM @ .6" S.P. NAFM

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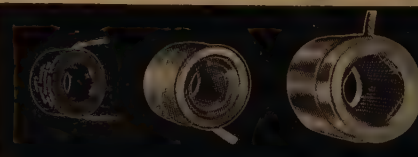
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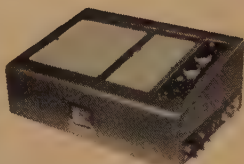
THE MOSELEY AUTOGRAF^{trade mark} X-Y RECORDER

A pioneer in its field, the Moseley AUTOGRAF X-Y Recorder is being adapted to an ever increasing number of graphic recording and data translating problems. Carefully manufactured to precision standards, the AUTOGRAF is available in five models to fit your particular requirement.

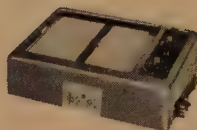
In addition to curve drawing, a full complement of accessories facilitate use of the AUTOGRAF in point plotting, curve following, card and tape reading, and gain-frequency plotting.



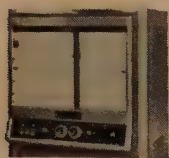
Model 1 portable type



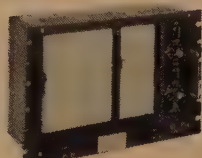
Model 2A flat-bed



Model 3 desk type



Model 4 rack type



Model 5 rack type

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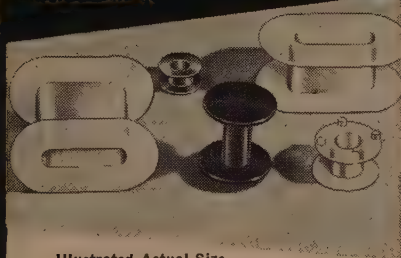
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length: 1 1/4"

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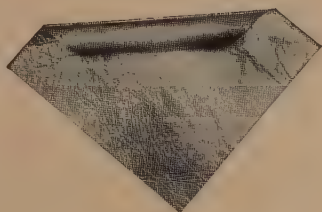
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microwave absorbers by

McMillan

McMillan Industrial Corporation makes various materials for the absorption of microwave energy, for indoor or outdoor use and for ground or airborne applications. Listed below are the three most popular absorbers, their typical applications, specifications and characteristics.



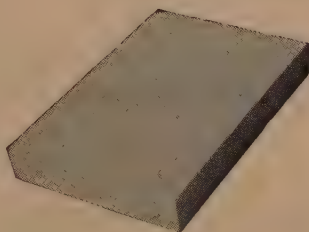
TYPE "T"

THIN — FLEXIBLE

Especially adaptable for airborne applications, the type "T" is an extremely versatile absorber where space and weight limitations are essential. Easily formed, it is impervious to effects of moisture, hydraulic fluids, gasoline etc., when edge sealed.

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Frequencies:	2500 to 35,000 MC.
Bandwidth:	± 3%
Power Reflection Coefficient:	
Perpendicular Polarization	1%
Parallel Polarization	2%
Perpendicular & Parallel Polarization	2%
Power Dissipation:	2 watts/sq. in.
Temperature Range:	—62°F to 172°F
Thickness & Weight:	at 9375 MC., 3/16" thick, 4.7 oz./sq. ft. at 5400 MC., 1/4" thick, 5.7 oz./sq. ft.
Standard Sheet Size:	18" x 36"



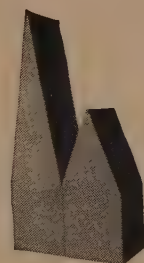
TYPE "BL" & "BH"

PERMANENT — LIGHTWEIGHT

Two stable absorbers whose high performance and long life is not affected by moisture, humidity and dust. Type "BL" is fine for walls, ceilings and test panels. Type "BH" is excellent for test room floors and outdoor installations, as its high absorption characteristics are unchanged when it is walked on.

SPECIFICATIONS

Frequency range:	1000 to 35,000 MC.
Power reflection coefficient:	0.4% at 24,000 MC. (perpendicular and/or parallel polarization)
	1.0% at 9,400 MC. 2.0% at 5,400 MC.
Power dissipation:	2 watts/sq. in.
Temperature range:	(type "BL") —62°F to 155°F (type "BH") —62°F to 175°F
Standard block size:	2" or 4" thick, 4' long, 1' wide
Weight:	(type "BL") .5 lbs./sq. ft. (type "BH") .7 lbs./sq. ft.



TYPE "BL-48"

BROADBAND — PERMANENT

Recommended for use in the low frequency range where permanent attenuation characteristics are required, for both indoor and outdoor applications.

SPECIFICATIONS

Frequency range:	40 to 35,000 MC.
Power reflection coefficient:	2 1/2%
Power Dissipation:	2 watts/sq. in.
(perpendicular and/or parallel polarization)	
Size:	Base — 1' x 2' Height — 48"
Weight:	5 lbs./sq. ft.
Temperature range:	—62°F to 155°F

Also available — Type "H"
Hair Mat Absorbers in thicknesses from 1" to 8" for frequencies from 500 to 35,000 MC



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450 MC
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Arrays—
gains to 10db.

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MODEL 900
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**SWEEP WIDTHS—AS WIDE AS 300 MC.
RANGE FROM—200 KC TO 1,000 MC.**

SPECIFICATIONS

VHF SWEEP RANGE

Center frequency continuously variable from 0.2 MC to 250 MC. Sweep Width continuously variable from a minimum of 0.1 MC, at any center frequency setting, to a maximum of 250 MC at a center frequency setting of 125 MC.

UHF SWEEP RANGE

Center frequency continuously variable from 275 MC to 900 MC. Sweep Width continuously variable from a minimum of 0.1 MC, at any center frequency setting, to a maximum of 100 MC at a center frequency of 275 MC, and to a maximum of 300 MC at a center frequency of 850 MC.

For complete information on the Model 900 and other special test equipment, write to



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50 ohms—VSWR less than 1.2.

OUTPUT VOLTAGE

0.3 volts RMS.

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AT MAX. SWEEP

VHF Range—±0.5 db.

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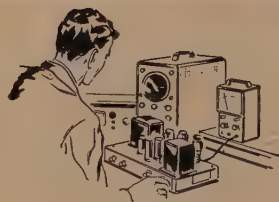
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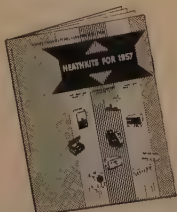
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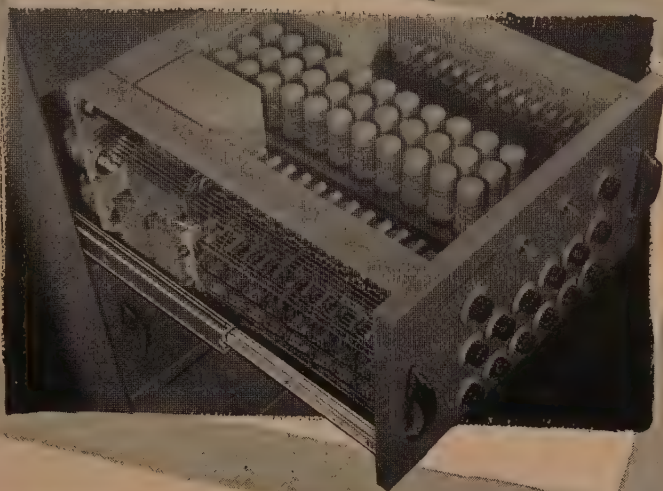
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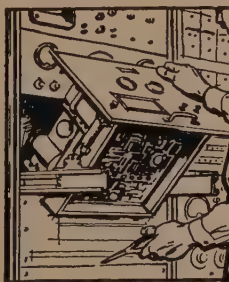
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Frequency Standards

ASBURY PARK, NEW JERSEY
TELEPHONE PROSPECT 4-0500

CAVITIES, PRESELECTORS, DIRECT READING FREQUENCY METERS

L BAND

Model	Type	Freq. Range (MC)	Features
912	Freq. Meter	900-1200	0.01%, portable
1217	Freq. Meter	1200-1700	0.01%, portable

S BAND

1628	Freq. Meter	1600-2800	0.02%, portable
2335	Freq. Meter	2300-3500	0.02%, portable

C BAND

3545	Freq. Meter	3500-4500	0.01%, four models
4458	Freq. Meter	4400-5850	0.01%, four models
5882	Freq. Meter	5800-8200	0.01%, four models
7182	Freq. Meter	7100-8200	0.01%, Type N input
5459-1DRX	Freq. Meter	5400-5900	0.01%, Direct Reading, Xtal
5865-1DR	Freq. Meter	5850-6500	0.01%, Direct Reading
5865-1DRX	Freq. Meter	5850-6500	0.01%, Direct Reading, Xtal

X BAND

8397	Freq. Meter	8300-9700	0.01%, waveguide mount
7010	Freq. Meter	7000-10000	0.02%, Feedback control
8211	Freq. Meter	8200-11500	0.02%, Feedback control
9096-1DR	Freq. Meter	9000-9500	0.01%, Direct Reading
1011-1DR	Freq. Meter	10650-11750	0.01%, Direct Reading

KU BAND

12150	Freq. Meter	12400-15000	0.02%, waveguide mount
15180	Freq. Meter	15000-18000	0.02%, waveguide mount

Many of the frequency meters listed above are available in both waveguide insertion and portable cased types. When supplied as a portable instrument, the meter is mounted in a handsome, waterproof, ruggedized metal carrying case. An external-internal switch allows the crystal output to be applied either to the internal microammeter, or to pin jacks for external metering or oscilloscope display.

The mechanical design of the meter is centered around the precision micrometer screw and nut famous in the Frequency Standards micrometer head. On the direct-reading meters, this screw and a precision external thread work together to provide a scale directly calibrated in frequency.

PRESELECTORS AND FILTERS

Frequency Standards, Inc. can supply a line of fixed and gang-tuned preselectors (standard or engineered) in the range from L through X band. These low-loss, narrow bandwidth, sub-miniature devices have found application in beacons, radar, missiles, commercial instruments, and airborne devices. Inquiries are invited on your specific application.

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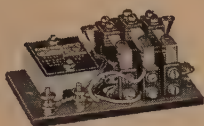
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AM2C



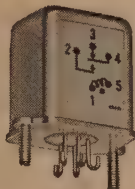
DM2C



LE2C



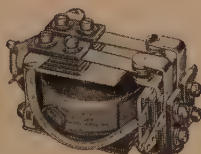
GH2C



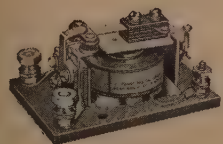
MK2C



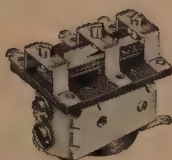
NM1C



PC2C



PV1A



SO1C



CB1C



SV1C



TQ4C

TYPE	USE	CONTACTS	COILS	DIMENSIONS		
AM	Antenna	2 Amps DPDT	1 to 220 VAC 1 to 150 VDC	1 $\frac{1}{16}$	1 $\frac{1}{16}$	1 $\frac{1}{16}$
DM	Time Delay	15 Amps DPDT	6-12-24-110-220 A.C. 6-12-24-48-110-220 D.C.	1 $\frac{1}{8}$	2 $\frac{5}{8}$	3 $\frac{3}{4}$
LE	Latching	15 Amps DPDT	Adjustable 250 MA to 500 MA	2 $\frac{3}{8}$	2 $\frac{1}{2}$	3 $\frac{5}{8}$
GH	General Purpose	5 Amps 3PDT	6 to 220 VAC 6 to 120 VDC	2 $\frac{1}{16}$	1 $\frac{1}{16}$	1 $\frac{1}{16}$
MK	Miniature	.5 Amps DPDT	.8 to 140 VDC	1 $\frac{3}{32}$	$\frac{3}{4}$	$\frac{7}{8}$
NM	Neomite	.25 Amps SPDT	3 to 30 VDC	.530	.195	.392
PC	Power Control	15 Amps DPDT	1 to 440 VAC 1 to 220 VDC	1 $\frac{1}{16}$	1 $\frac{5}{8}$	2 $\frac{5}{8}$
PV	Power Transfer	30 Amps SPST	1 to 440 VAC 1 to 220 VDC	1 $\frac{1}{8}$	2 $\frac{1}{4}$	3 $\frac{1}{4}$
SO	Sensitive	1.5 Amps SPDT	4000 OHMS 6500 OHMS 10,000 OHMS	1 $\frac{1}{32}$	1 $\frac{1}{8}$	1 $\frac{1}{4}$
CB	Coaxial	.75 KW SPDT DPDT	440 AC 230 DC	1 $\frac{1}{8}$	3 $\frac{1}{16}$	3 $\frac{3}{8}$
SV	Sensitive	2 Amps SPDT	1 to 40,000 OHMS	1 $\frac{1}{2}$	2	2 $\frac{1}{16}$
TQ	Telephone	5 Amps 6PDT	1 to 220 VDC	1 $\frac{1}{32}$	1 $\frac{1}{16}$	1 $\frac{1}{16}$

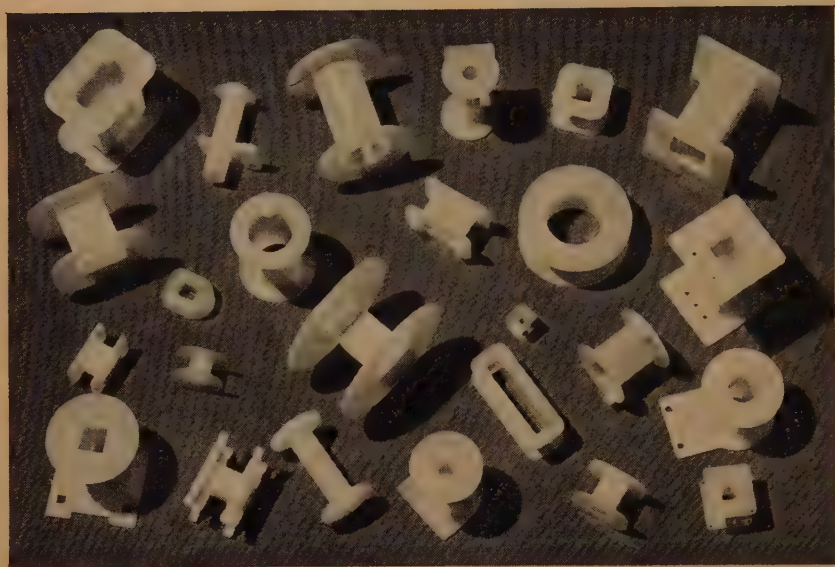
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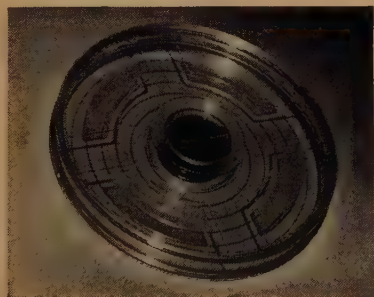
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- Reel held rigid at center
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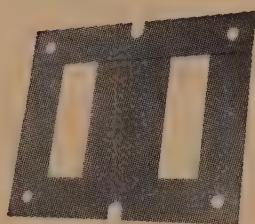
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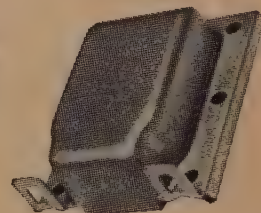
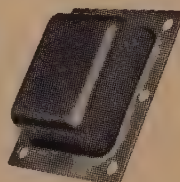
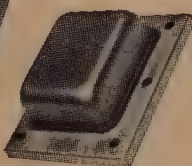
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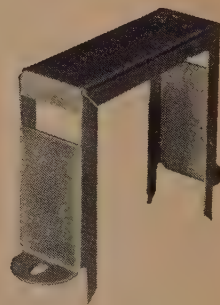
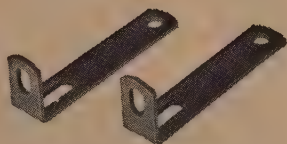
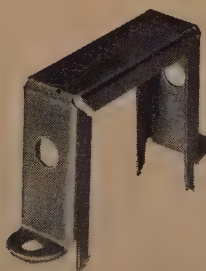
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Our engineers and designers have worked closely with both the radio and electronic industries over a long period of years. Ideas suggested by these various sources have been a factor in the development of the Kobzy line. This practice is continued as these industries grow and their requirements increase.



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Fits all standard banana jacks. Set screw provided at side of tenite barrel to fasten wire without soldering. Red and black.



**NEW MULTI-WAY
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Made of durable tenite with nickel plated brass parts. Permits SIX different methods of connecting above panel and three below panel.

COMPONENTS



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LEAD KIT No. 312**

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**INSULATED TIP JACKS
No. 889**

One-piece tinned phosphor bronze spring contact loop. Insulated top. For standard phone tips.



**INSULATED BINDING
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No. 623**

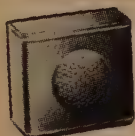
For banana type plugs. Knurled grip, non-removable head. Hole in stem for wire or phone tip connection.



**PLUG TEST PRODS
No. 390**

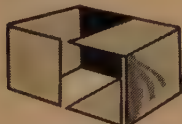
With solderless plug chuck. Slim tapped tenite handles. Brass parts are nickel-plated.

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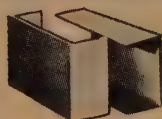
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Houses either a 4" or 5" speaker. Gray ripple finish, 20 gauge steel with embossed grille.



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2 pc. box. Easily accessible and assembled. .050 aluminum in black wrinkle (Series No. 29300) gray hammertone (Series No. 29400) and natural (Series No. 29200).



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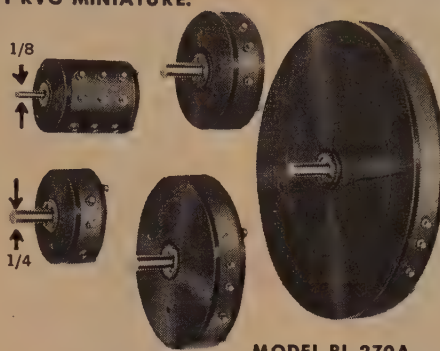
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The RL-270A and B Series

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Torque, Max. (oz.-in.)	1	1	1	1/2	1/2
Weight (ounces)	15	6	3	2	1
Mounting: 3 holes (1/4" deep)	#8-32	#8-32	#8-32	#6-32	#4-40
Mounting-circle Diam. "B" (inches)	3.250	1.750	1.250	1.000	1.000
Max. Resistance (ohms) ±5%	500K	250K	150K	100K	65K
Min. Resistance (ohms) ±5%	115	60	35	25	20
Max. Number of Turns	13,500	7,300	4,200	3,100	2,200
Electrical Functional Angle (deg.)*	358.5	357	355	353	350
Linearity, Standard (%)	±0.1	±0.1	±0.15	±0.25	±0.25
Maximum Number of Taps	74	40	26	20	14

*Tolerances not shown on angles

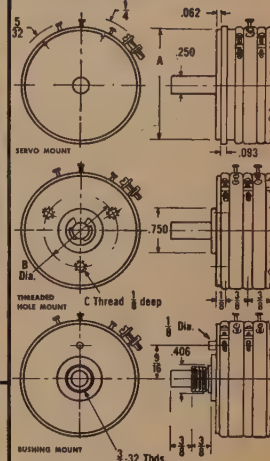


MODEL RL-270A



MODEL RL-270B

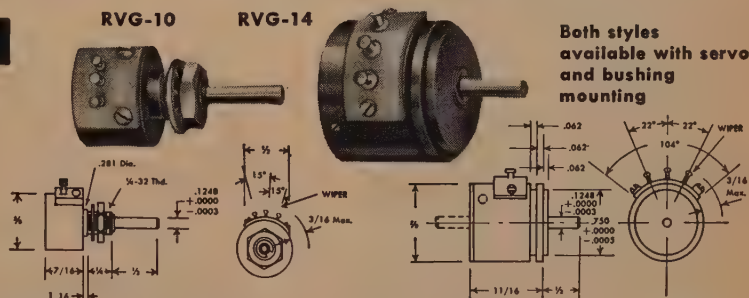
... Exclusive Gamewell Phasing Clamp Style



MODEL	MAX. DIA.	A	B
RL-270B-1 1/4	1 1/4	1.500	1.000
RL-270B-2	2	1.875	1.250
RL-270B-3	3	2.875	1.750

The RVG Miniatures

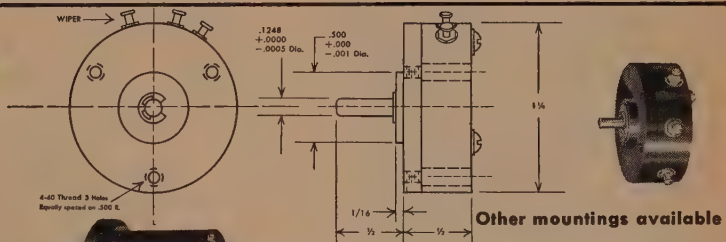
	RVG-10	RVG-14
Diameter	5/8"	7/8"
Rating (Watts)	1	1.25
Torque, Max. (oz.-in.)	0.2	0.25
Weight (ounces)	3/4	3/4
Max. Resistance (ohms) ±5%	30,000	50,000
Min. Resistance (ohms) ±5%	25	40
Max. Number of Turns	1230	1800
Electrical Function Angle (deg.)	345 ±3	354 ±2
Linearity, Standard (%)	±0.5	±0.5



Both styles available with servo and bushing mounting

The LOW COST G-20

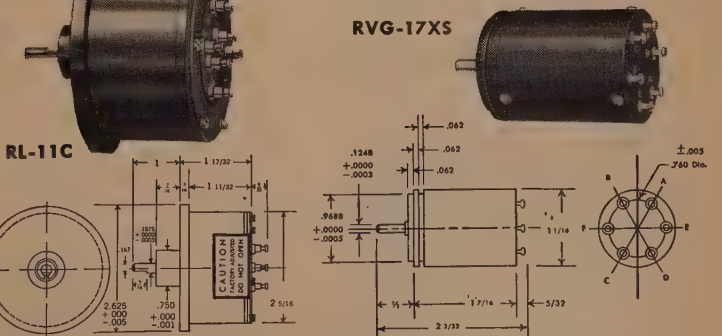
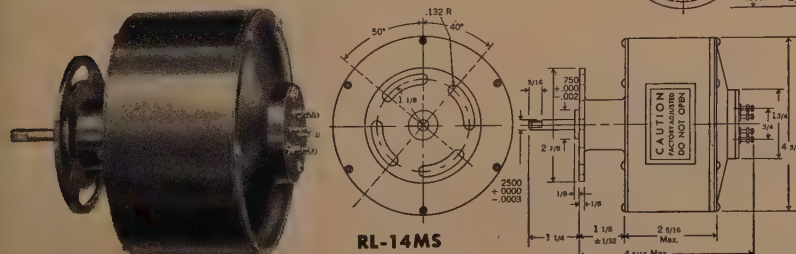
Rating (Watts)	1.5	Min. Resistance (ohms) ±5%	20
Torque, Max. (oz.-in.)	1	Max. Number of Turns	2,100
Weight (ounces)	1 1/4	Electrical Function Angle (deg.)	340 ±3
Max. Resistance (ohms) ±5%	63,000	Linearity, Standard (%)	±0.5



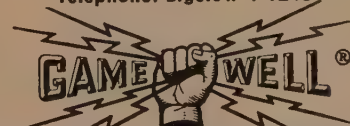
Other mountings available

The SINUSOIDAL Type

	RL-14MS	RL-11C	RVG-17XS
Total Resistance (ohms)	35,400 ± 1%	16,000 ± 10%	18,000 ± 5%
Approx. % Resistance within brush circle	98.5 ± 1/2	85	95
Angle of Rotation	360°	360°	360°
Weight	1.8 lb.	4.75 oz.	1.5 oz.
Torque (Approximate)	2 oz.-in.	3/4 oz.-in.	1/4 oz.-in.
Wire	80 Ni-20 Cr	80 Ni-20 Cr	80 Ni-20 Cr
Resolution	0.2°	0.4°	0.5°
Angular Accuracy	±0.5°	±0.6°	±1°
Amplitude Accuracy	±0.6%	±0.8%	±1.5%
Maximum Volts across winding	350	150	150
Maximum Speed	60 RPM	60 RPM	60 RPM
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TYPE 14



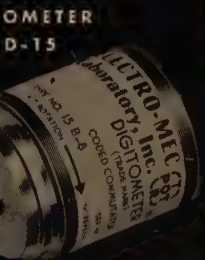
TYPE 18



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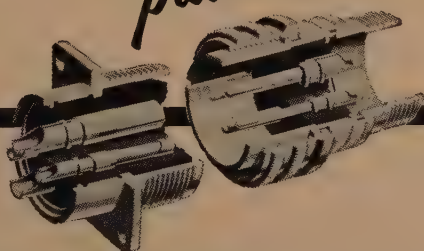
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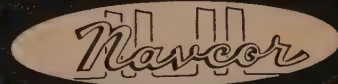


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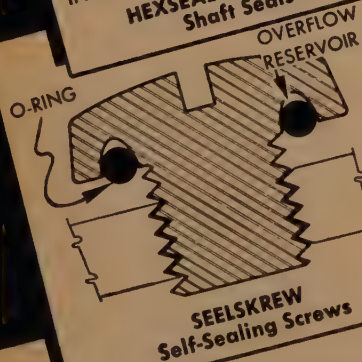
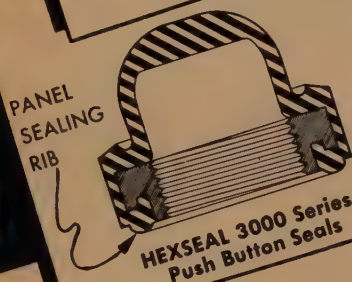
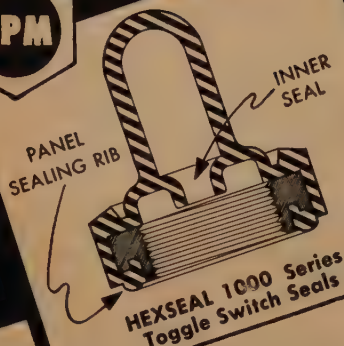
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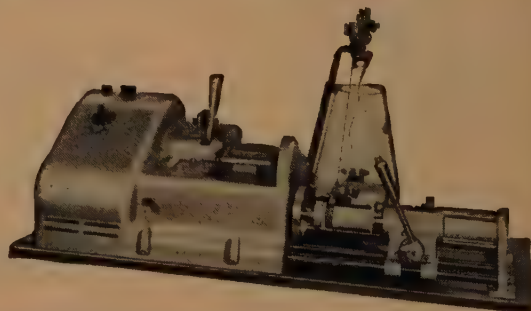


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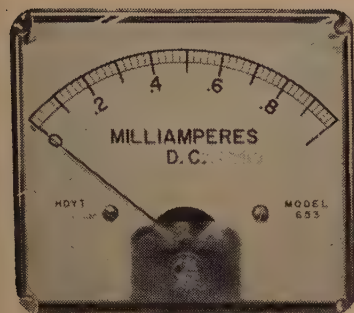
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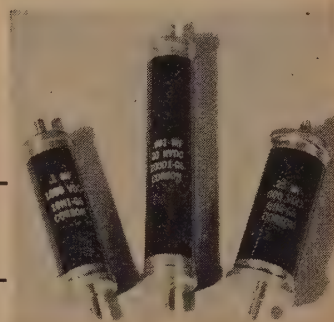
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.001	to 1.	4,000
.001	to .5	5,000
.0005	to .2	8,000
.00025	to .2	10,000
.0005	to .06	15,000
.0005	to .04	20,000
.0005	to .02	30,000
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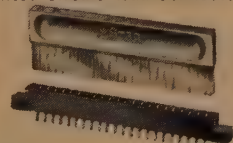


MINIATURE
JE-10 with 7 pins and JE-9 with 9 pins.



SUB-MINIATURE
JE-7 inline for pinch-base tube sockets.

★Star Inline Wiring Plug for Printed Circuit Lead Connector.



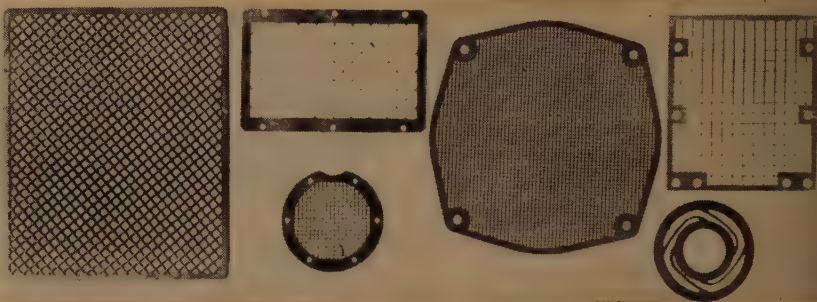
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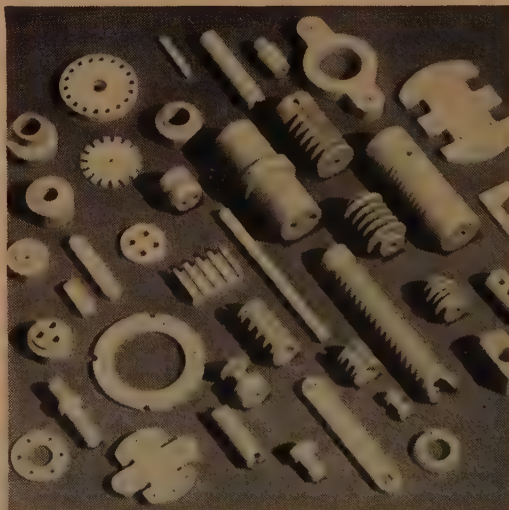
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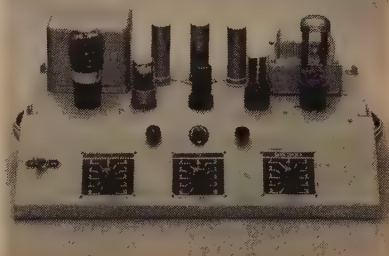


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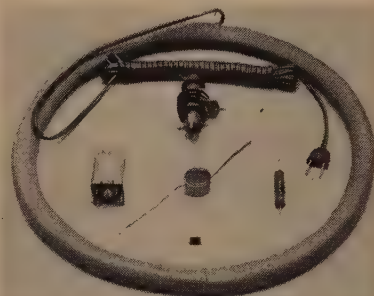
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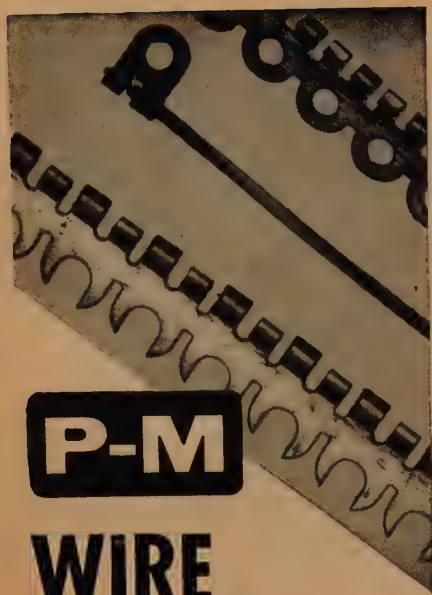
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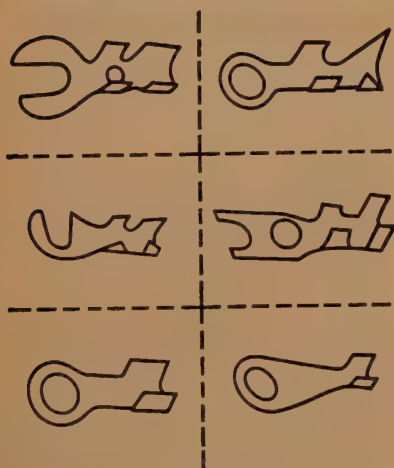
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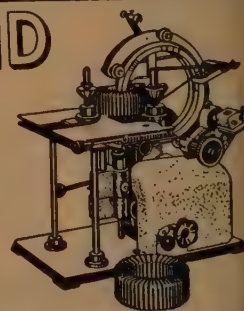
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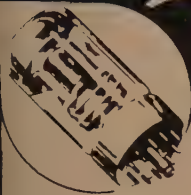


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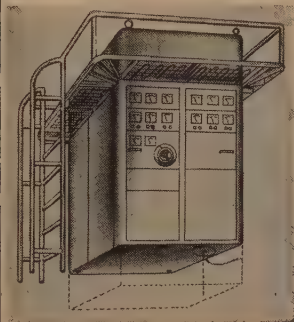
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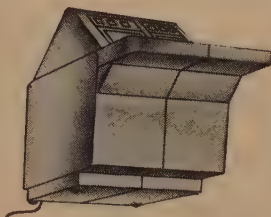
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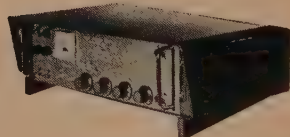
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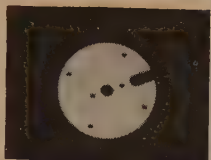
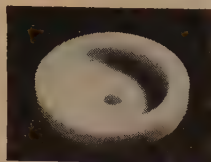
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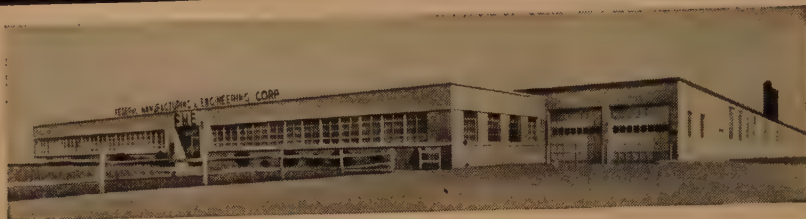
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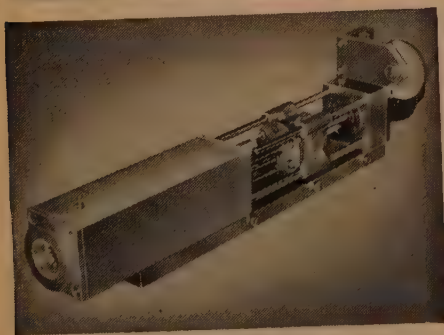


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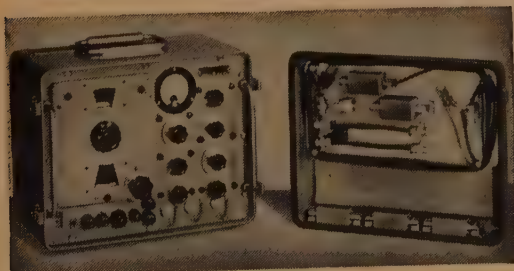


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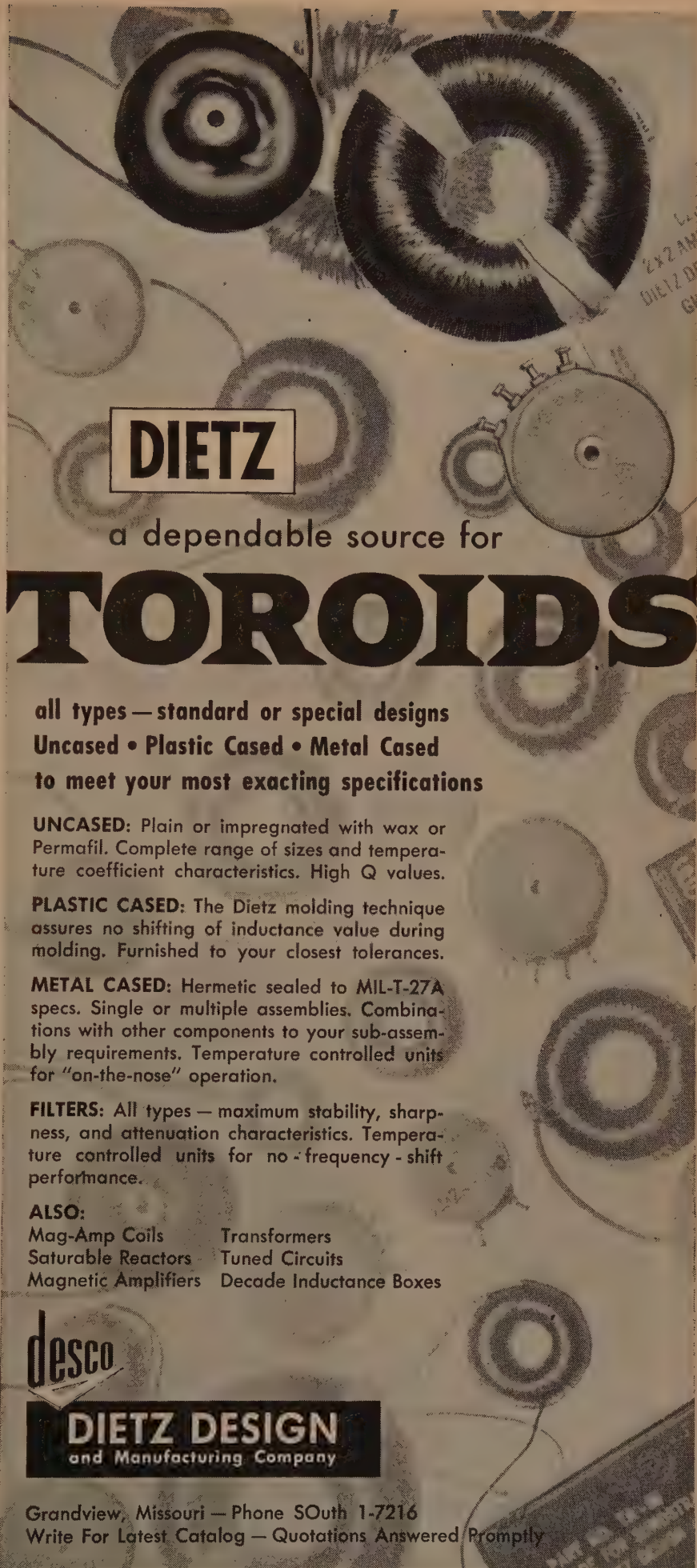
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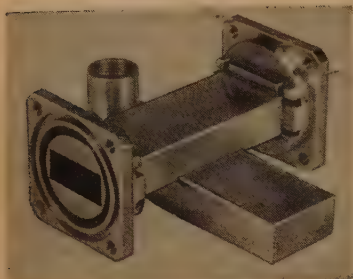
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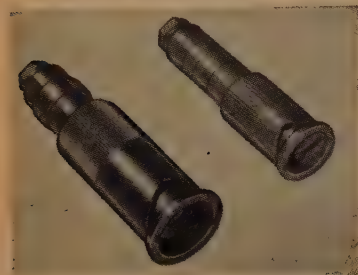
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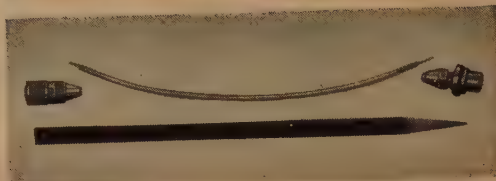
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"TNC" Series (GRFF designation)

A complete line of small, thread-coupled coaxial connectors that assure tight, permanent contact and low noise-level. Specially designed for airborne services. Available hermetically sealed, pressurized, weatherproof, and for all other applications; includes adapters to other series. Have characteristics of latest type BNC plus advantages of type N.

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HIGH-VOLTAGE, HIGH-ALTITUDE D-C, SHIELDED SERIES

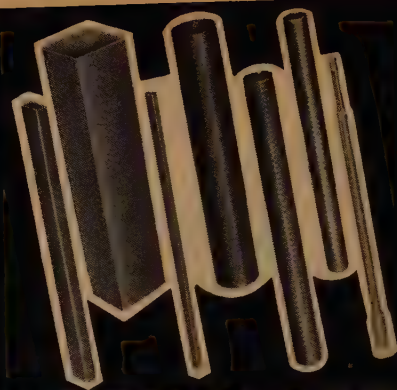
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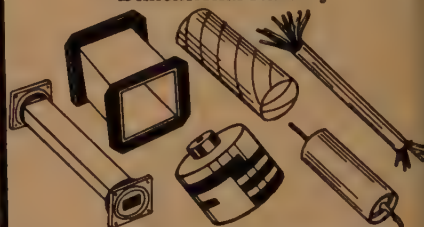
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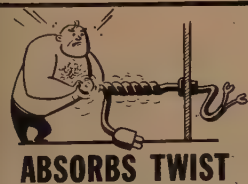
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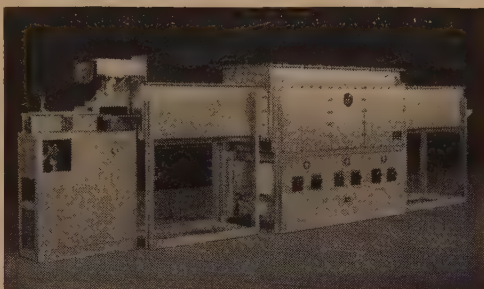


**HEY MAN!
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WHICH KILN IS RIGHT FOR FIRING YOUR ELECTRONIC CERAMICS?



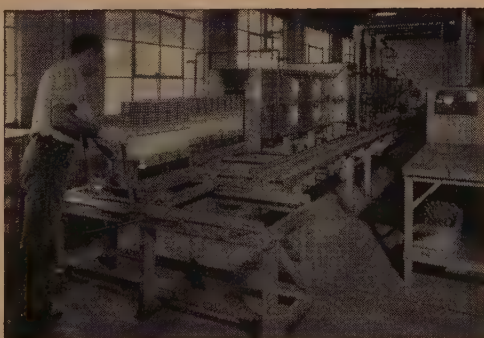
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Selecting the right kiln for firing ferrites, titanates, steatites and the other electronic ceramics is becoming an increasingly difficult matter. Why? Because of the wider application of electronic components and the rapidly accumulating knowledge from both research and production. There are many more questions that have to be answered today than there used to be.

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These are just a few of the questions that should be discussed intelligently and confidentially with a reliable kiln manufacturer . . . one who has grown up with the electronic ceramics industry; one who has learned from past experience and won't have to use you as a guinea pig; one who will keep your problems and your processes confidential; one who can recommend the right kiln to suit your heat processing requirements.

Harper is that kiln manufacturer.

. . . For full information, write for Bulletin CDB 57 to: Harper Electric Furnace Corporation, 48 River Street, Buffalo 2, New York.



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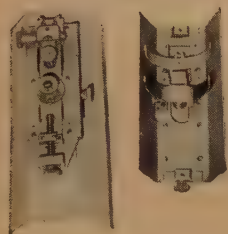
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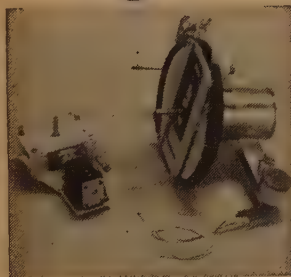
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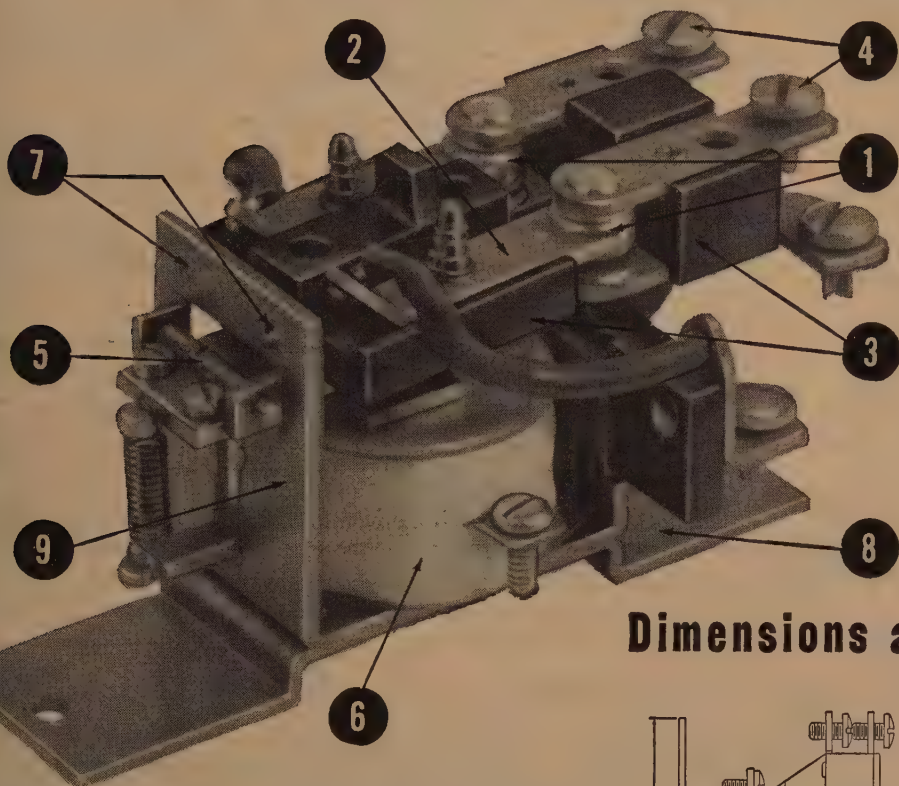


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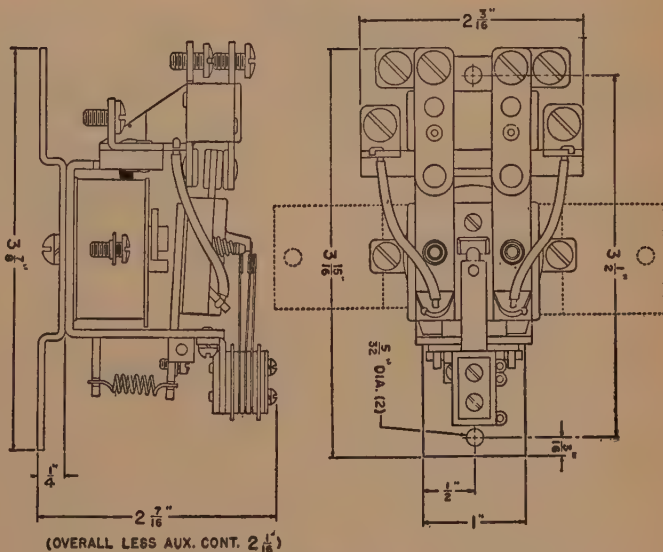
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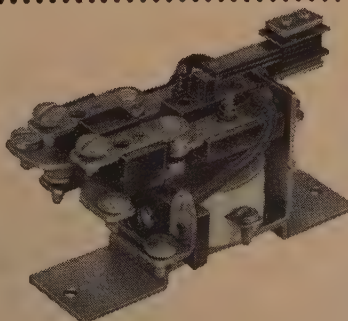


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AUXILIARY CONTACTS (SERIES 131)

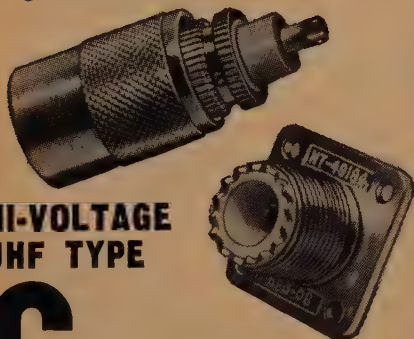
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Q. A.

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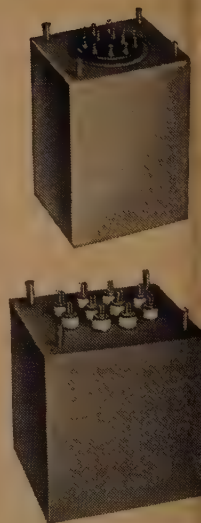
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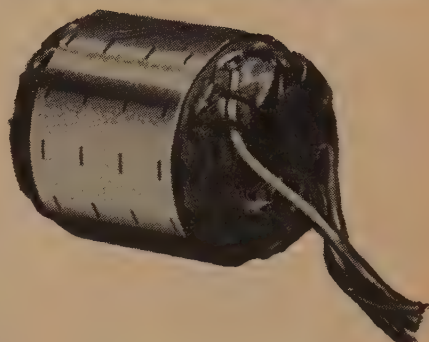
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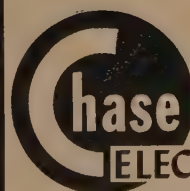
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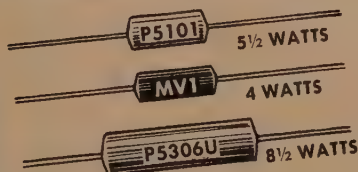
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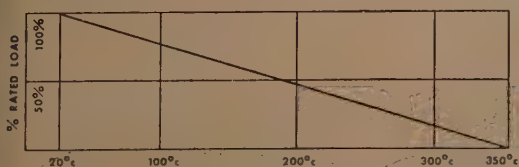
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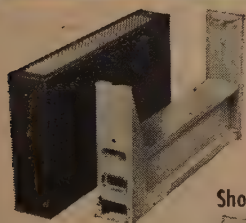


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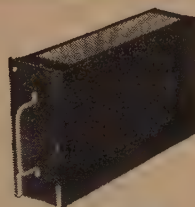
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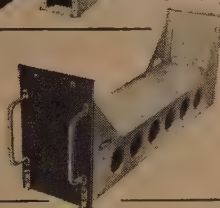


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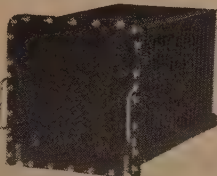
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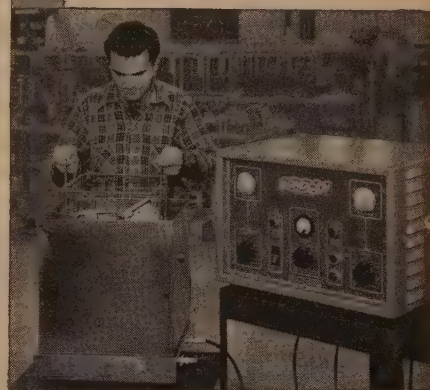
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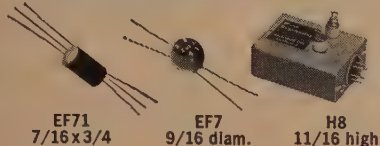
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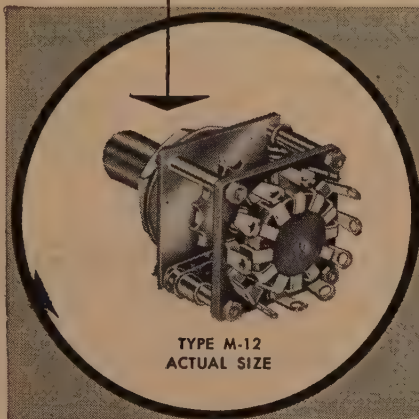
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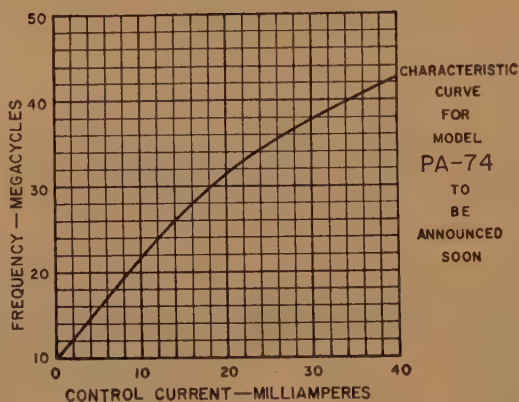
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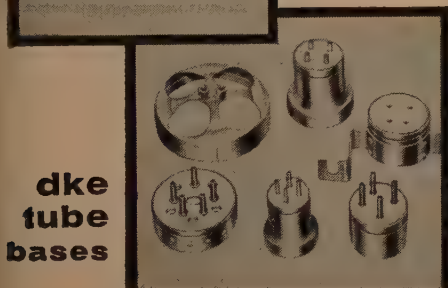
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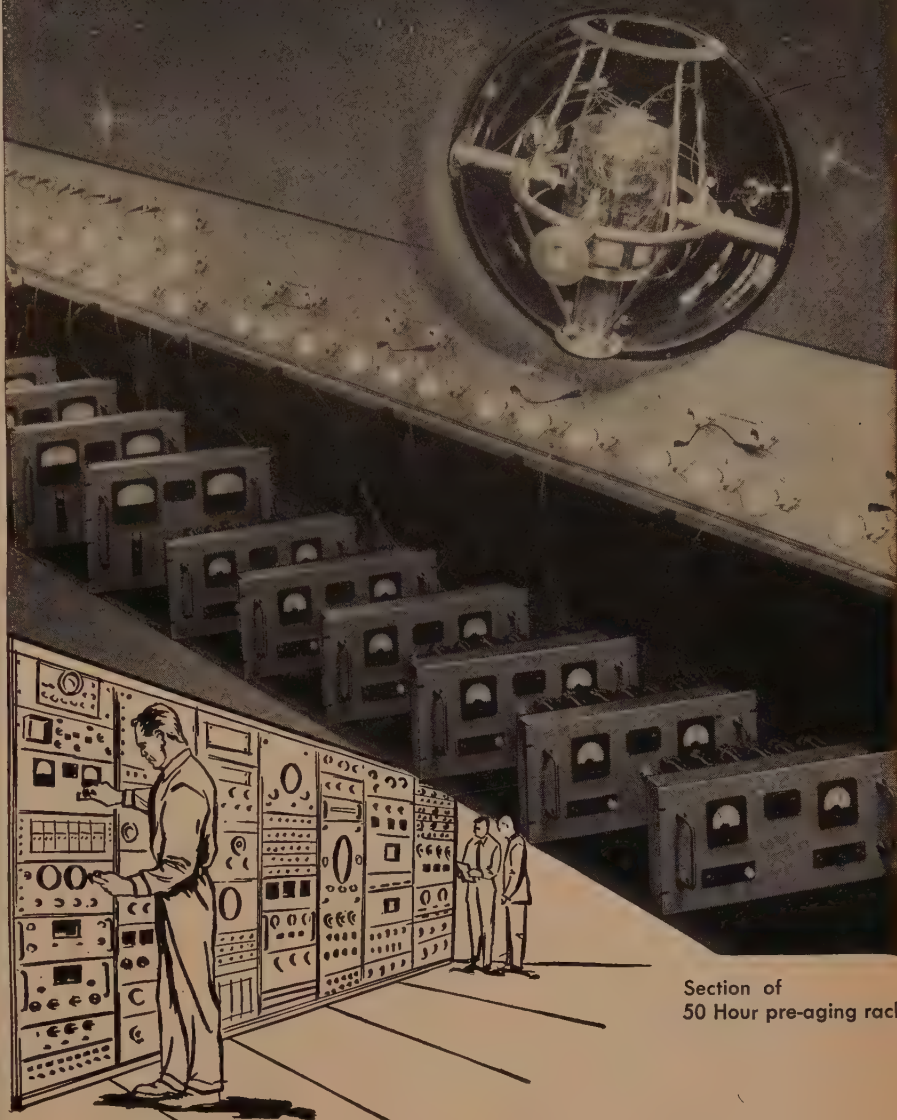
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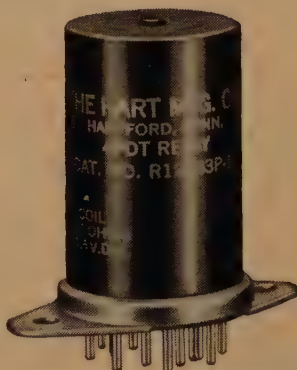
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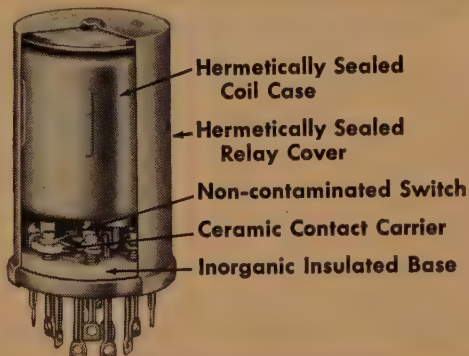
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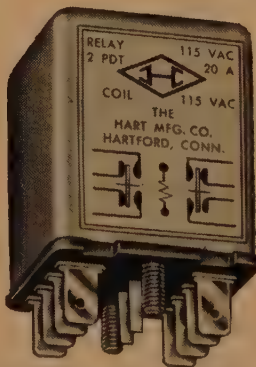
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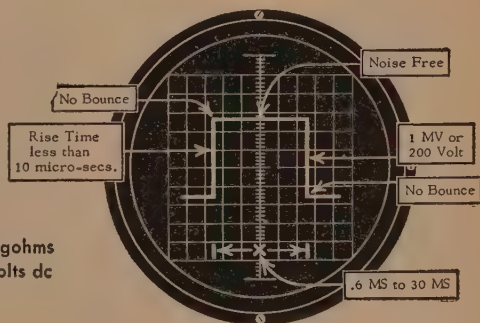
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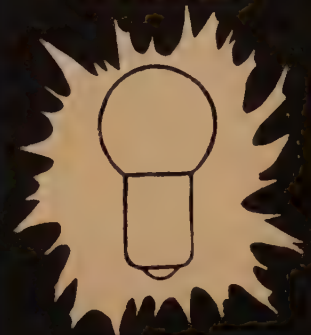
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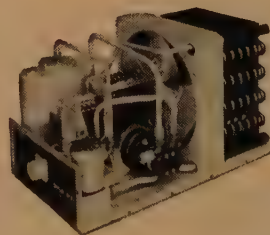
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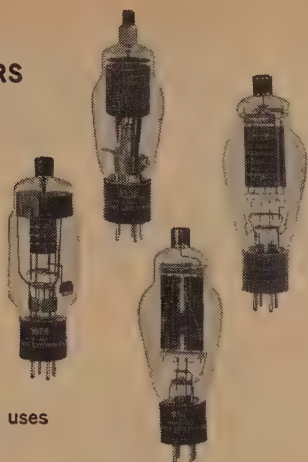
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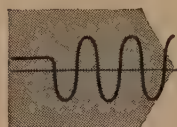
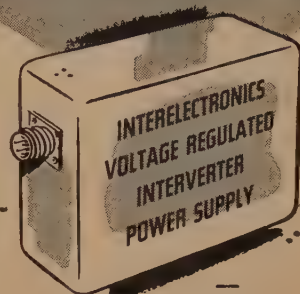


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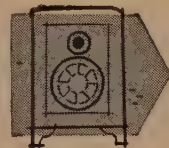
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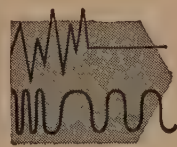
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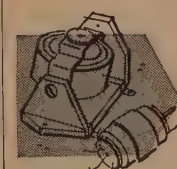
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Selectivity audio filters (440 and 600 cycles)—10 DB at $\pm 10\%$ from resonance

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Outputs—audio output adjustable from 0-5 volts

Indicator—Eye tube indicates zero beat between unknown signal and WWV

Aural output—panel speaker with volume control

Power requirements—105-125 volts 50/60 cycles, 85 watts

Mechanical features

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—panel is done in smooth grey and the dust cover in grey wrinkle

—panel connectors will accommodate banana-type plugs

—dimensions: Height $8\frac{3}{4}$ ", Width 19", Depth $10\frac{1}{2}$ "

—weight 25 lbs.



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—continuously variable from 250 to 500 volts at 50 MA

—regulation is better than 1%

—ripple is less than 3 milli-volts or better

—stand-by beam voltage switch

Reflector voltage

—continuously variable from 25 to 875 volts

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—ripple is less than 5 milli-volts or better

Square wave modulation

—variable from 500-5000 cps

—amplitude variable 0-100 volts

Modulators—may be synchronized from external voltages

Power—105/125 volts 50 to 60 cycles A.C., 150 watts

Mechanical features

— $8\frac{3}{4}$ " aluminum rack panel finished in light grey

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Low noise—equivalent to .025 microvolts at input

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—protection against accidental burn out of crystals or bolometer

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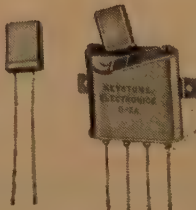


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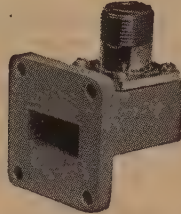
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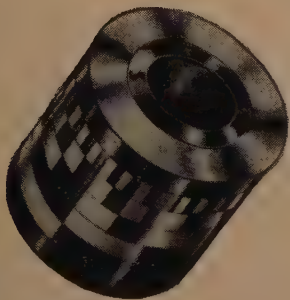
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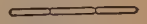
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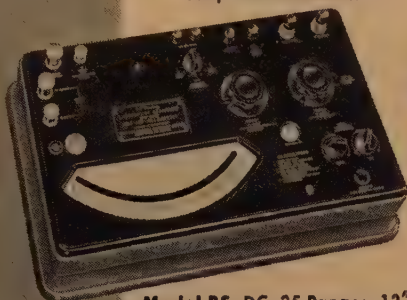
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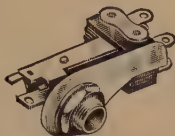
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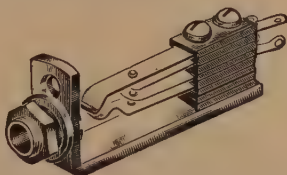
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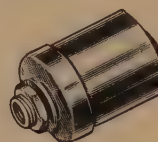
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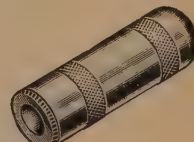
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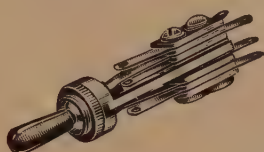
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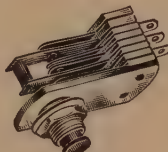
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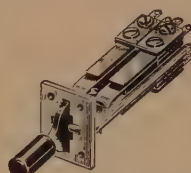
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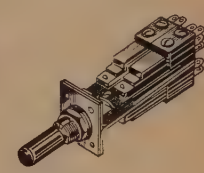
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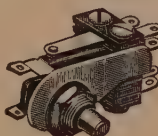
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FAST (1) Mark II model reads at speeds up to 200 characters per second, and stops the tape from full speed within a character position — within .03 inch. The tape is accelerated to full speed again in 5 milliseconds and the following character is ready for reading within 6 milliseconds of rest position.

(2) Mark IIA model reads at speeds up to 400 characters per second, and stops within .1 inch.

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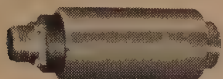


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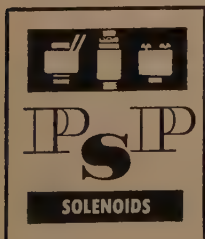


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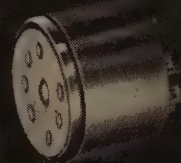
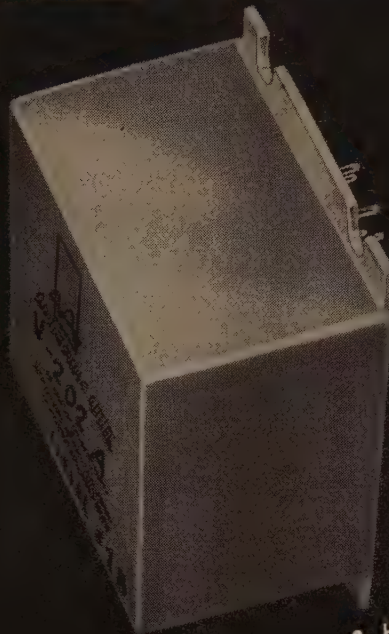
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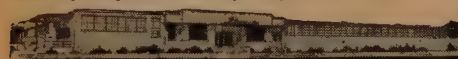
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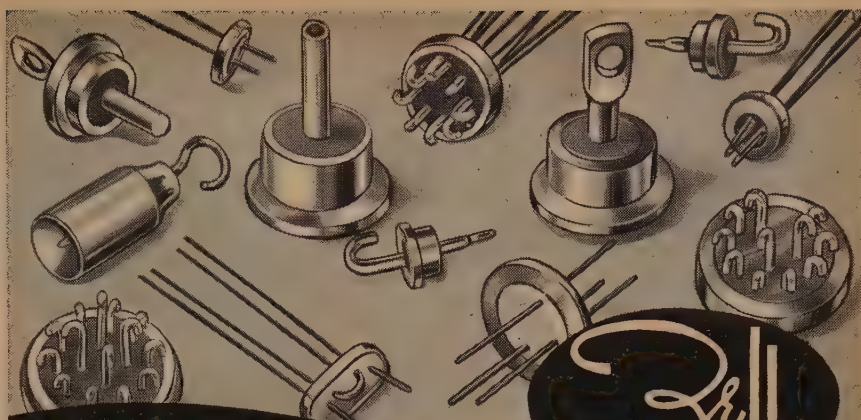
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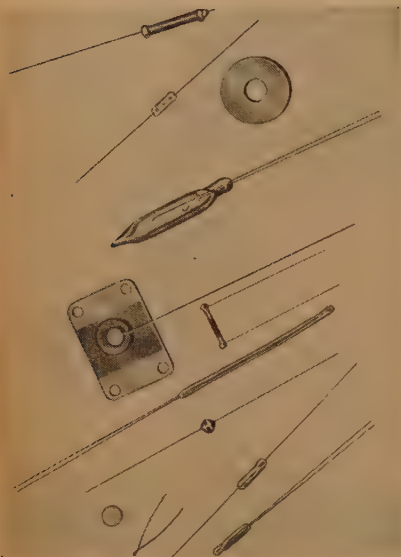
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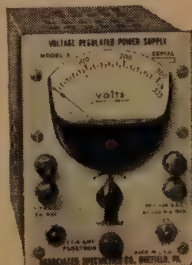
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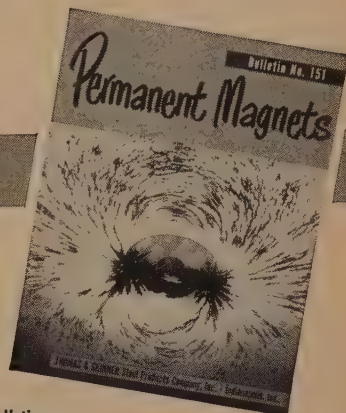
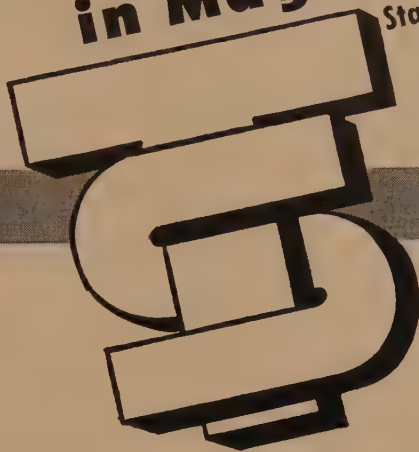
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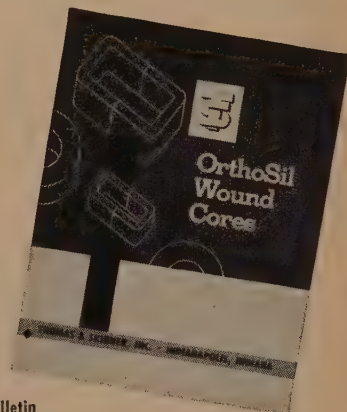
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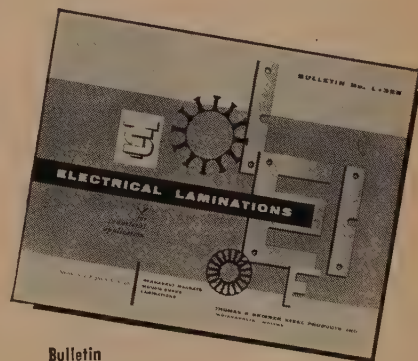


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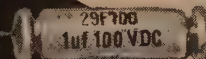
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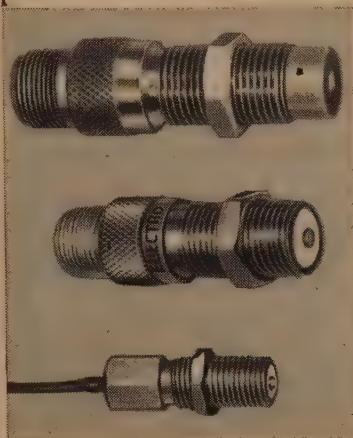
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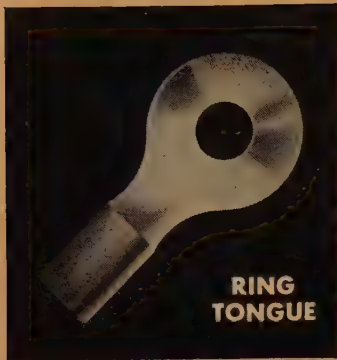
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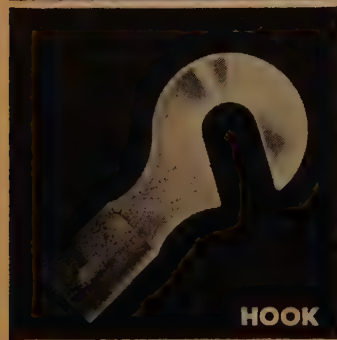
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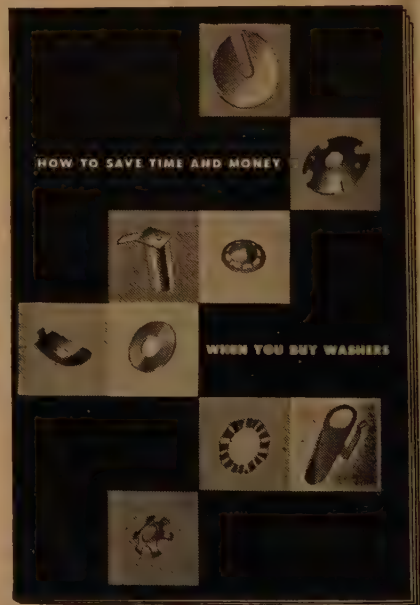
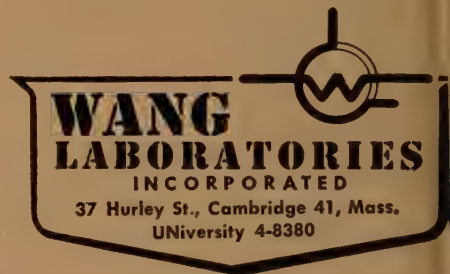
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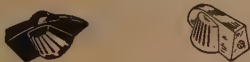
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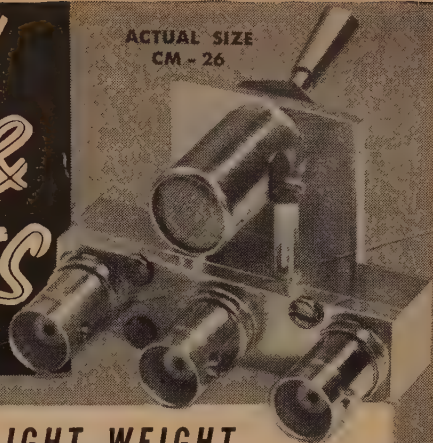
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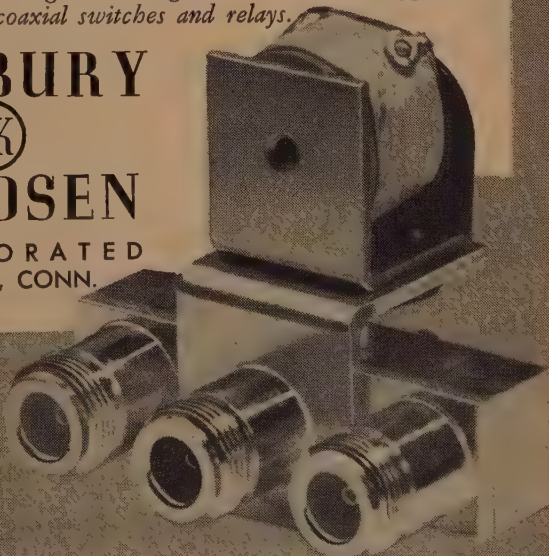
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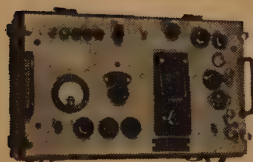
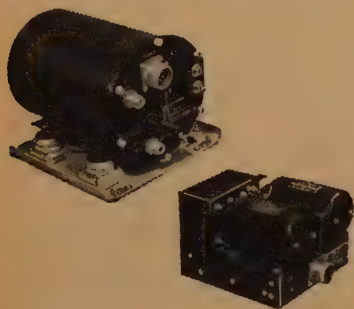
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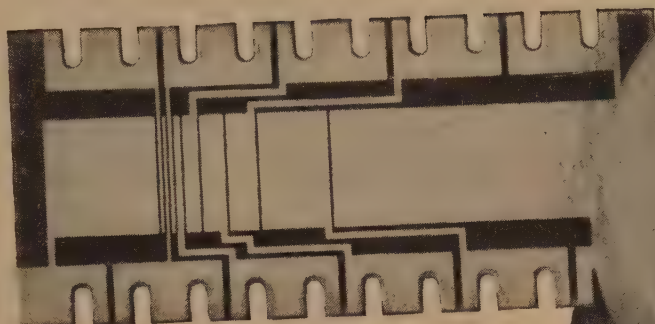
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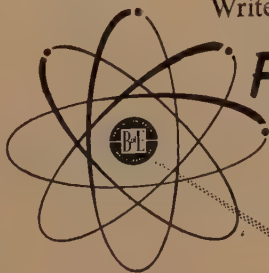
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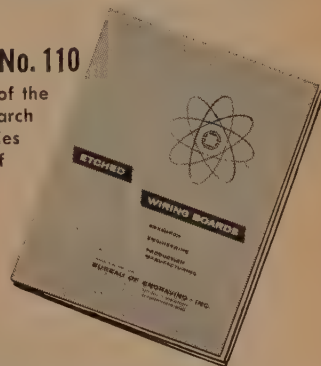
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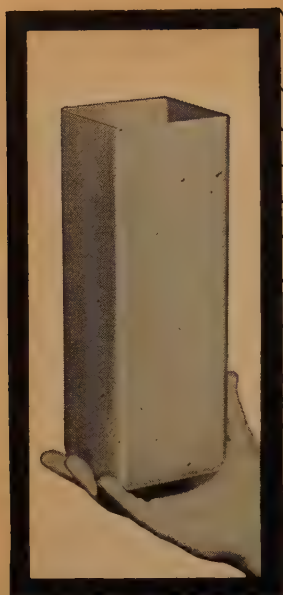
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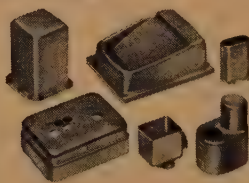
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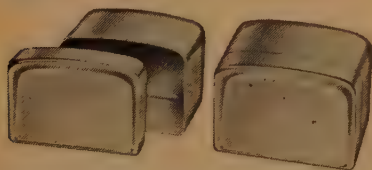
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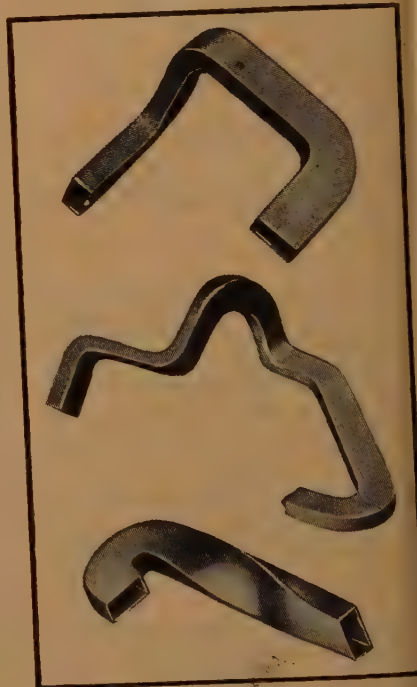
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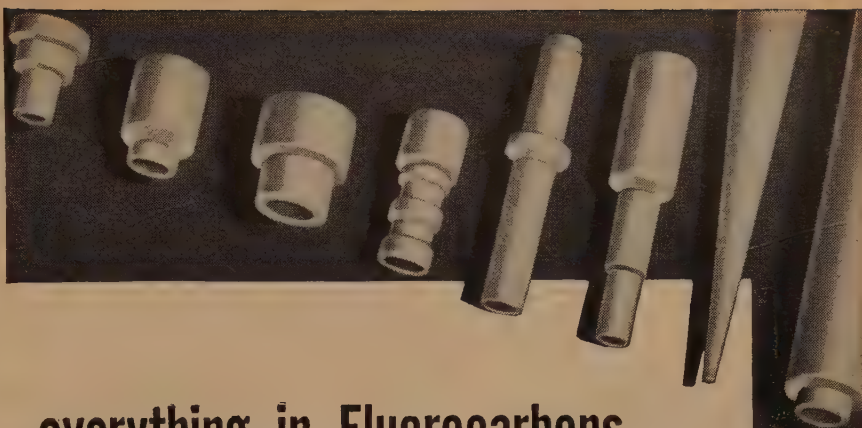
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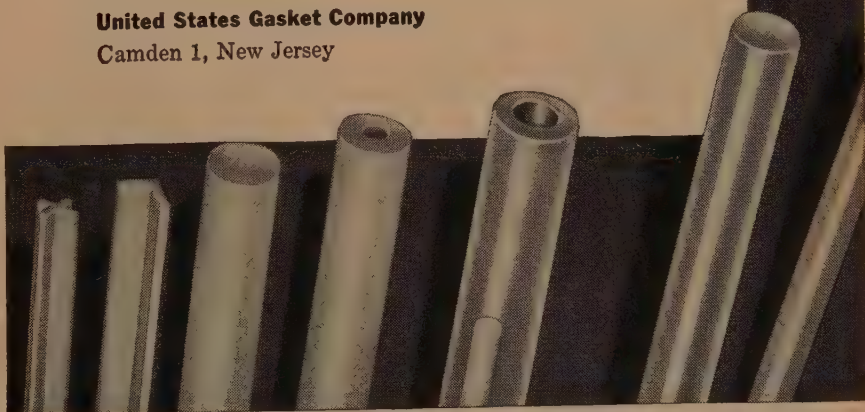
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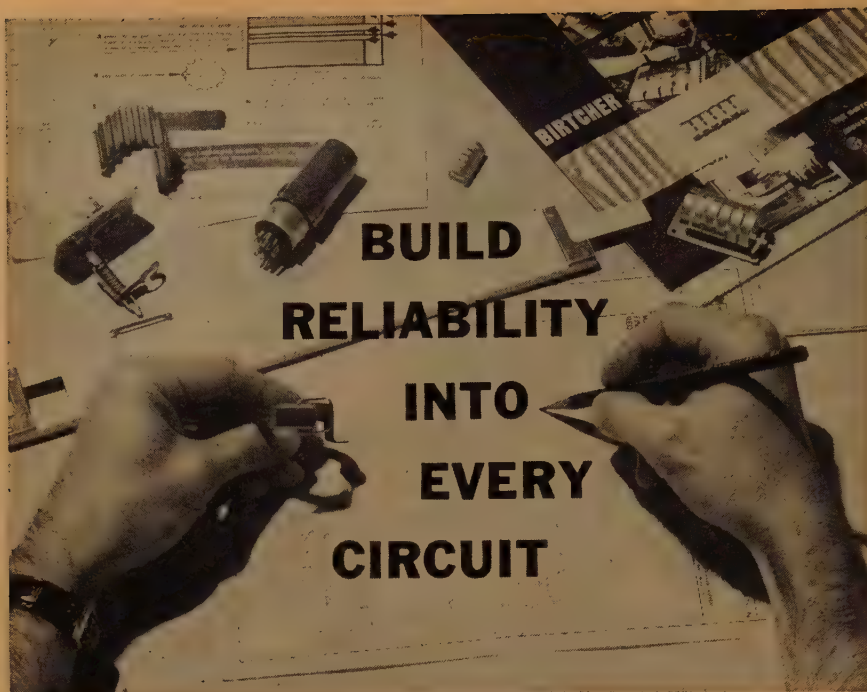
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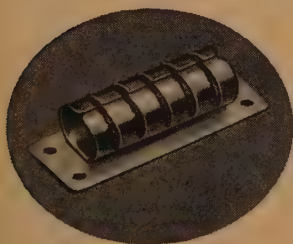


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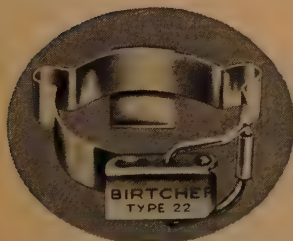
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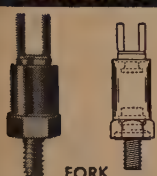
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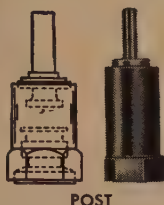
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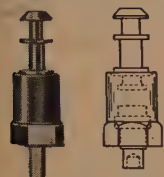
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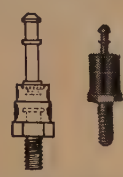
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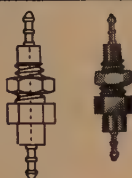


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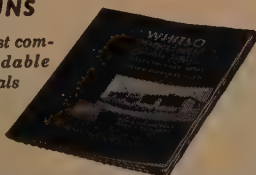
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The Behlman INVERTRON is widely used for research, development, and production of magnetic amplifiers, servo systems, airborne instrumentation, synchros, motors, shaker tables, and choppers.

MODEL 2003-D-1
POWER OUTPUT: 2000 va three
phase, FREQUENCY: 350 to 450
cps variable, FREQUENCY AC-
CURACY: 0.5% (0.2% and 0.1%
available), INPUT: 230v 60 cps
single phase, OVERALL SIZE: 24"
wide x 73" high x 24" deep.

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ADDITIONAL
INFORMATION**

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ENGINEERING COMPANY

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POWER AMPLIFIERS • OSCILLATORS • FREQUENCY STANDARDS • CUSTOM INSTRUMENTATION

CIRCON

**SPECIALIZED
MINIATURE and
SUB-MINIATURE
ELECTRONIC-INSTRUMENT
EQUIPMENT
PRINTED CIRCUIT
CONNECTORS**



FEMALE Compression loaded Contact Connectors gives a wide range of flexibility of contact arrangement, cabling, and design application. They are open end design for all standard circuit thicknesses in one and two ampere models. 4, 12, 24, 36, 48 and 60 contacts—

IN STOCK.



MALE Connectors in compatible sizes give two-way cabling to precision printed or instrument circuits with highest contact performance.

All connectors exceed temperature requirements MIL-E-5400, humidity MIL-P-

15035, Type PRE-P, and conform to N.E.M.A. tolerances.

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Finest premium quality instrument and electronic hardware. Instrument screws, nuts, split lock and flat washers. Gold plated, shot burnished instrument rivets and eyelets. Forty-five sizes start at 1/16" X 3/64" and up in 1/32" increments. IN STOCK. MICROMINIATURE Terminal Lugs and 1/32" diameter Rivets for extremely compact printed circuits and other electronic and instrument applications.

NEW MINIATURE INDICATOR LAMP ASSEMBLIES



For printed or regular circuits. 3/8" X 5/16" front, 1/2" rear projection. Mount 7/16" centers. Over 1000 on 12" panel. Available in 1.3, 2.7, 6, 14, 28 volts in stock. Standard and special message indications

and colors. Vibration proof mounting without fasteners and easily replaced standard incandescent bulbs are prime service features of the unit. Finest quality materials and sealed construction for military end use and finest commercial applications.

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Stabilized for Operation in Thermal Ambient
-70° C. to +250° C. Output Power Levels
to 500 W.



MODEL MLL-60-2



MODEL MHL-400-1

● MAGNETIC AMPLIFIERS

Commercial Type Stabilized for Operation in
Thermal Ambient. -40° C. to +110° C.



MODEL MMH-400-1

● MAGNETIC MODULATORS

High Temperature Type. -65° C. to +250° C.
For Fundamental Frequency or D.C. Output.

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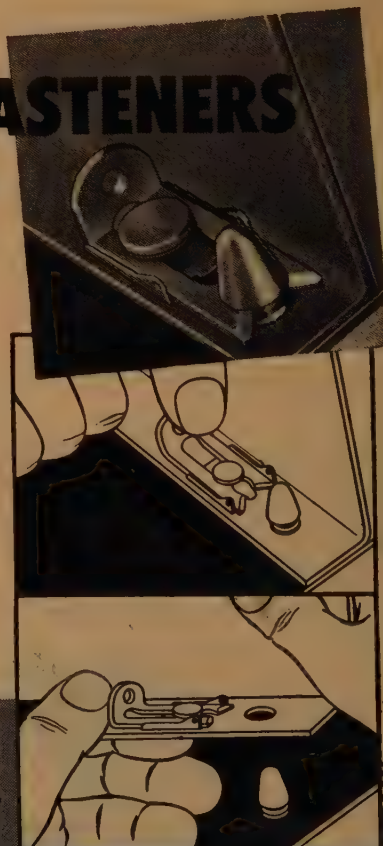
Here's a simple, easy means of securely fastening assemblies to withstand shock or vibration, and yet allow quick removal for inspection or repair. Instant snap action engages or releases fastener . . . no tools are required! After installation, fasteners never need adjustment . . . even with repeated use.

Three sizes available for different load requirements. Large and medium sizes are made of corrosion-resistant stainless steel. Small size is made of nickel-plated brass. Stock parts fit various thicknesses of flanges and mounting plates . . . special parts can also be supplied.

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With

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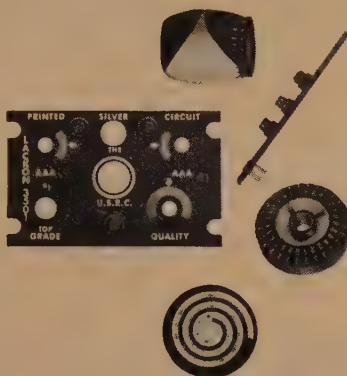
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All USR dials and panels manufactured by the LACKON® process satisfy MIL-P-7788. Skilled personnel and advanced production techniques provide dials, panels, knobs and knob skirts with pinpoint reproduction and accuracy, as well as resistance to solvents and weathering. USR's integral edge-lighted panels represent the most significant development in the instrument and control panel field since introduction of printed circuits. These new panels simplify lighting circuit assembly and provide greater flexibility for the design engineer.



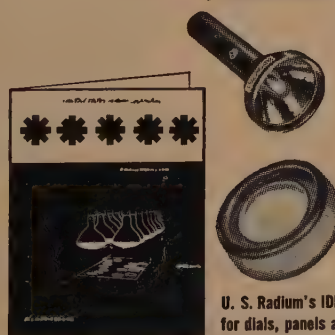
CATHODE-RAY TUBE PHOSPHORS

Phosphors for all cathode-ray tube applications are unsurpassed in adhesion and brightness. Closely controlled through every step of processing, USR phosphors feature high batch-to-batch uniformity. Colors are prepared to customer requirements.



DIALS AND PANELS

Metal and plastic dials and panels are available for instrument and control panel application. USR offers the widest selection of marking techniques and an extensive array of materials from which to choose.



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Radioisotopes and radioisotope-excited phosphors packaged in a wide variety of custom-engineered, permanently sealed containers are designed to provide optimum radiation or illumination for research, process control, data display and signalling applications.

U. S. Radium's IDEA FILE, a guide to selection of proper materials and techniques for dials, panels and nameplates, is available on request. Write for Bulletin 10.30C

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Regardless of complexity, design or tolerance problems—you can get UHF or microwave components that are job-engineered to your application. All units are delivered, *electrically tested and proven*, ready for immediate operation.

Components can be built from your prints or can be designed and built to integrate with the application. Close and confidential coordination is maintained from drawing board stage to installation.

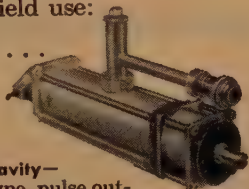
Range of assemblies is practically unlimited—from dc. to over 40,000 mc., military or industrial. Typical examples are these components, delivered ready for field use:

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Transmitter Cavity—

re-entrant type, pulse output 150 w., operates at extreme altitudes and under extreme conditions of temperature, humidity and salt spray.

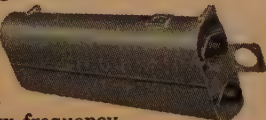


Improving signal-to-noise ratio... selectivity...

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relatively low frequency coaxial resonator with very low insertion loss, extreme selectivity and very high signal-to-noise ratio. Especially adapted to use in aircraft or in crowded communication bands.



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S-Band

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Generator

Cavity—

re-entrant type, complete with thermistor mount and calibrated variable attenuator. Frequency range 2700 to 3400 mc.



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please mention Electronics Buyers' Guide.

MACARR

Inc.

MODEL 999 BATTERY CHARGER

Model 999 Charger is a fully automatic, constant current type unit, capable of charging three batteries independently and simultaneously. Includes a discharge circuit designed specifically for the maintenance of silver-zinc batteries.

Constant current is maintained throughout the entire charging cycle except at the initial start when battery is practically a short circuit. At this point the charger surge is limited to less than ten amperes for the short duration required to bring battery terminal voltage up.

Charger terminal voltage automatically regulates to maintain current constant from a theoretical starting voltage of zero to a critical range of 28-28.5V.

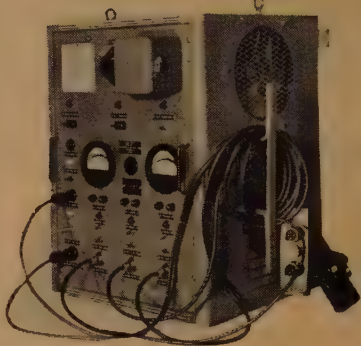
At this level the battery is considered charged and charger automatically shuts off.

Charger is equipped with input line cord, three sets of charging leads with Cannon 11751 plug and one set of discharge leads.

Input: 115 volts, 1 phase, 50/60 cycles

Output: 3- independent outputs, each 5-6 A @ 28.5 Volts

Discharge Circuits: 1-75 Amps, 1-20 Amps



MAGNETIC AMPLIFIER REGULATED RECTIFIER—MODEL MAR 120-10

Input: 115 volts, 1 phase, 60 cycles

Output: 10 A @ 120 volts nominal $\pm 10\%$

Regulation: Less than 1% from zero to full load with $\pm 10\%$ line change

Ripple: 1% RMS

Response: .2 seconds

Cooling: Convection

Meters: 3 1/2" Voltmeter and Ammeter

Cabinet Size: 28" H x 22" W x 15" D

Wall or bench mounted

Model MAR 120-10 is a ruggedly constructed magnetic amplifier regulated power supply using high efficiency silicon diodes for reference circuits and germanium or silicon for the power rectifiers.

SEND FOR COMPLETE INFORMATION



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PROTECT YOUR PRODUCT

at point of strain
Protect product saleability too — by insuring long life for cords, cables and conductors. Genuine "GRIPMASTER" Strain Reliefs provide these vital features—

- ★ Anchor cords to housings
- ★ Eliminate taping or threading
- ★ Prevent unraveling
- ★ Prevent cord pull damage
- ★ All sizes and styles
- ★ Easy to apply
- ★ Inexpensive

Gripmaster Strain Reliefs are "tremendous trifles" that make good products better!

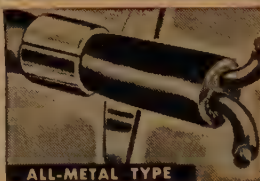
Ask for samples.

4 WAYS TO END ALL CORD AND CABLE SERVICE FAILURES

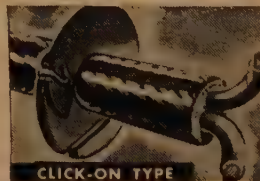
Economically

GRIPMASTER STRAIN RELIEFS

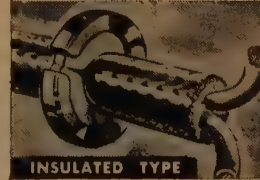
Interruptions due to cable and cord connection failures are eliminated because they anchor the cord to the product at the point of strain. GRIPMASTER Strain Reliefs can withstand pulls up to 100 lbs., and are acceptable to Underwriters Laboratories. All types Reg. U. S. Pat. Off.



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CLICK-ON TYPE



INSULATED TYPE

WIRE BINDING SLEEVES—Preventing fraying of cord ends, these specially-treated rubber tubes are available in five sizes to fit wires to .790



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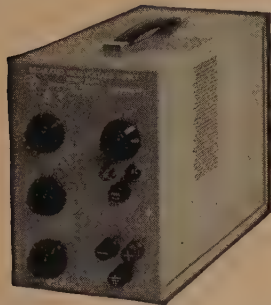
STRAIN RELIEF SPECIALISTS

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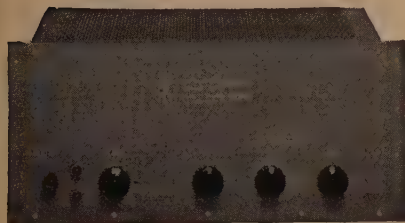
PRECISION SUPPLIES

Portable Pattern



Model	Voltage	Current
RE-1601	200-1600	0-25 Ma
RE-1602	300-1600	0-10 Ma
RE-1901	300-1900	0-25 Ma

Rack Pattern



Model	Voltage	Current
RE-1603	300-1600	0-10 Ma
RE-1610	300-1600	0-100 Ma
RE-2003	500-2000	0-25 Ma
RE-2006	500-2000	0-50 Ma
RE-3002	500-3000	0-20 Ma
RE-3004	500-3000	0-40 Ma
RE-3006	500-3000	0-60 Ma
RE-5001	500-5000	0-10 Ma
RE-5002	500-5000	0-20 Ma
RE-5003	500-5000	0-30 Ma
RE-5502	1000-5500	0-25 Ma
RE-10001	1000-10000	0-10 Ma

Features

Either positive or negative of any supply may be grounded.

Regulation: .01 to .001%

Line Stability: .05 to .005%

Long-term Stability: .01-.05% per hour, about 0.1% per day

Impedance: 1 to 5 Ohms

Ripple: 0.5 to 3 Mv P-P

Standard tubes used

Constant Current Supplies

RI-222E	.01-220 Ma	0-340V
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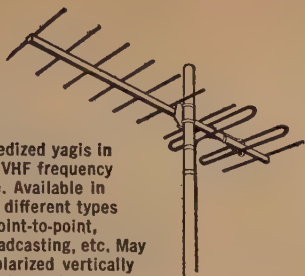
Millimeter Wave Generators

KSG-291	36.2-33.5 kmc	8.3-8.9 mm
KSG-290	33.5-29.7 kmc	8.9-10. mm
KSG-289	30-27.3 kmc	10.-11. mm
KSG-33	25-22 kmc	12.-13.6 mm

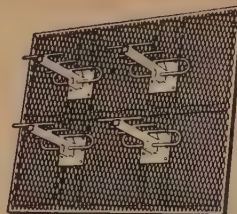
Any of these supplies can be modified or special designs built to meet specialized requirements.

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CAMBRIDGE 38, Mass.



Ruggedized yagis in wide VHF frequency range. Available in many different types for point-to-point, rebroadcasting, etc. May be polarized vertically or horizontally.

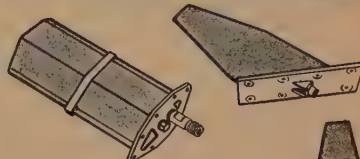


SY-44 Screen type reflector with 4 yagi antennas. 450-470 MC range. Mounting for tower or pipe mast available. 13 db gain over half-wave dipole.

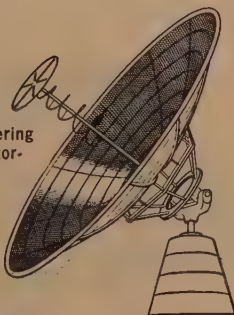
when it comes to antennas...



AT-197
Disc cone type.
Frequency range
225-400 MC.

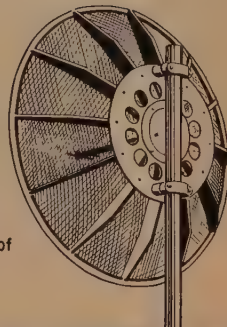


Blade-type antennas for military and commercial communications. Wide range of models and frequencies.



16-foot telemetering parabolic reflector-antenna. Helical driver for operation in range of 215-235 MC. Other drivers available.

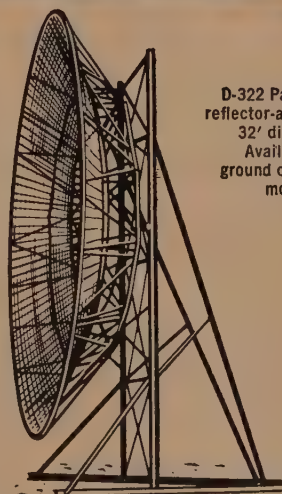
4-foot, one-piece parabolic reflector-antenna. Wide selection of drivers. Also, 6, 8, 10, 16, 19 and 32-foot dishes available with drivers to meet the needs of the system.



you name it—we make it

Taco is the world's largest organization devoted solely to design, development and production of fine antenna systems for the military, commercial and home markets. A wide choice of 'stock' antenna types makes Taco the place to look for antennas to meet your needs. If we don't have what you need, we'll make it.

Send for complete technical catalog...



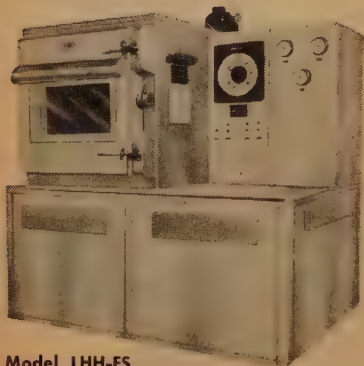
D-322 Parabolic reflector-antenna, 32' diameter. Available for ground or tower mounting.

TACO

TECHNICAL APPLIANCE CORPORATION, SHERBURNE, N. Y.

In Canada: Hackbusch Electronics, Ltd., Toronto 4, Ont.

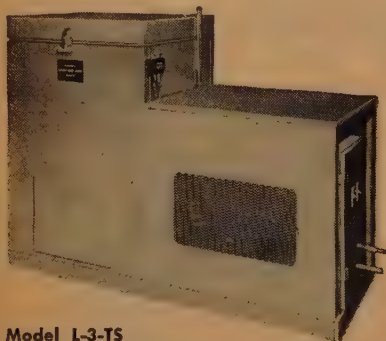
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Model LHH-FS

Low-High Temperature Chamber with Controlled Humidity

Supplied in sizes from 2 to 100 cu. ft. net working space, these chambers operate to -100°F at rapid reduction rate and provide controlled humidity through a range of 35 to 175°F at 20 to 95% r.h. Full controls available.



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Equipment available to meet U. S. Govt. specs for environmental testing. Electronic or pneumatic recording or indicating control systems. Walk-in rooms, temperature baths and custom chambers manufactured to specifications. Optional finishes in hammertone, aluminum or stainless steel. Rounded corners standard on all equipment.

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ACKERMAN ENGRAVERS

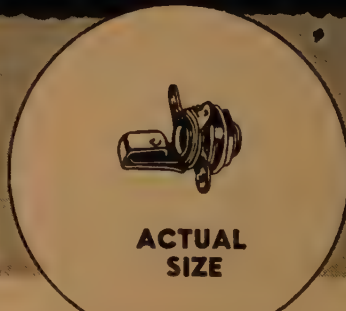
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for Miniature Electronic Applications

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- Computing Machines
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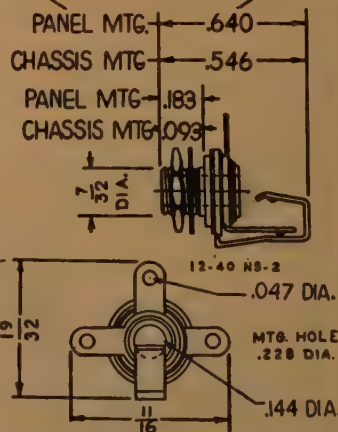
ACTUAL
SIZE

Part No.	Type	Mounting
311	Closed Circuit	Panel
312	Closed Circuit	Chassis
313	Open Circuit	Panel
314	Open Circuit	Chassis

Despite its tiny size (about one-third the size of standard models) this new jack is precision made, and ruggedly built for all electronic applications.

Mounting bushing is made of brass, nickel plated, requires .228 dia. mounting hole. Insulators are Laminated Phenolic, and spring contacts are silver plated.

Manufacturers of Electronic components of the highest quality now serving the leading manufacturers in the United States & Canada. For complete information send for our catalog.



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E-1005 WHEATSTONE BRIDGE

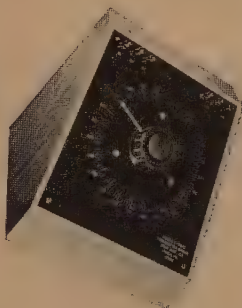
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E-3040 AW LABORATORY STANDARD
Accuracy .01%

E-3035 BROOKS DEFLECTION TYPE
For Instrument Calibration

E-3030 WHITE DOUBLE POTENTIOMETERS
For Precise Thermocouple Work

E-2554 VOLTAGE DIVIDER
Accurate to 1 Part in 100,000



E-2582 TRANSMITTER BRIDGE

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Accuracy .02%, Designed
For Resistance Thermometry

Portable Types in Various
Ranges and Models



RACK MOUNTED E-3043 POTENTIOMETER

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15, 10, & 5 DEGREE INTERVALS

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Also: Thermocouple gauges, Philips Discharge Gauge, and Thermocouple Relay Controllers



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All-metal air and water-cooled types designed for high speed, low back-streaming and high forepressure tolerance

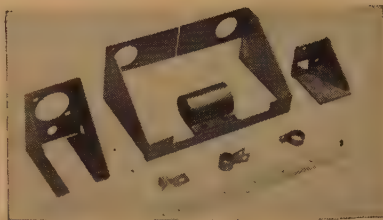
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- CHASSIS of ALL TYPES
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- REGULATOR CIRCUIT PLATE POWER.....
- APPLICATION BULLETIN WITH EACH UNIT

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ST2010

Primary:
115 Volts AC, 50 to 1000 cps

Secondaries:
570-0-570V 240 ma^{*}
5.0V 3 A
6.3V 3 A
6.3V 1.2A
6.3VCT 6 A

^{*}Note 40 ma provided

Size: 5 1/4 x 4 1/4 x 5 1/2 H
Mtg. Centers: 3 1/2 x 3 1/2
Weight 15 lbs.
Associated Choke: ST2009
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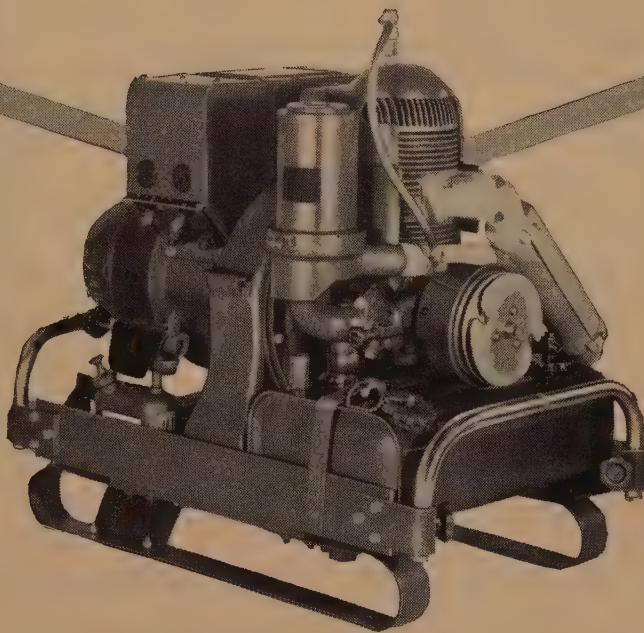
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*This military rating must be met at 5000 ft., after 500 hours of operation, and at an ambient temperature of 107°F . Under average conditions this unit is capable of producing close to 5 KW.

For the full story, write for Homelite's new booklet, "Generators for Military Use."

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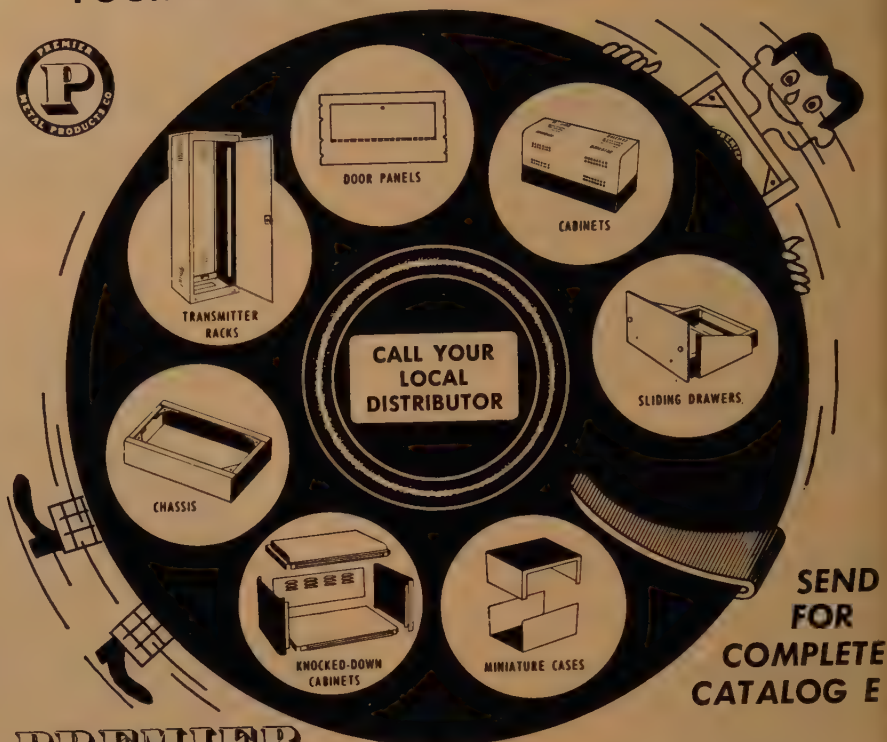
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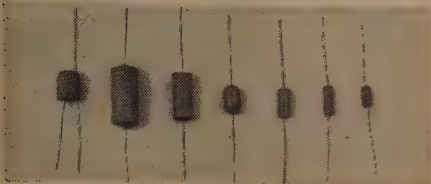
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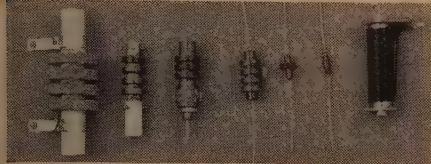
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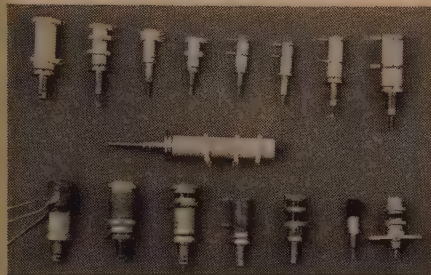
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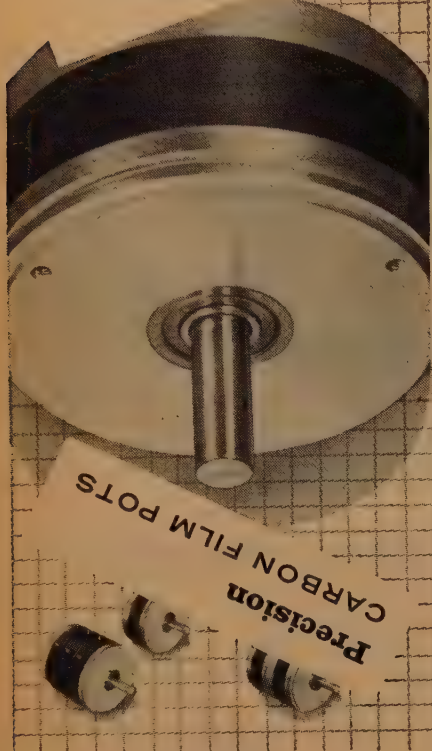
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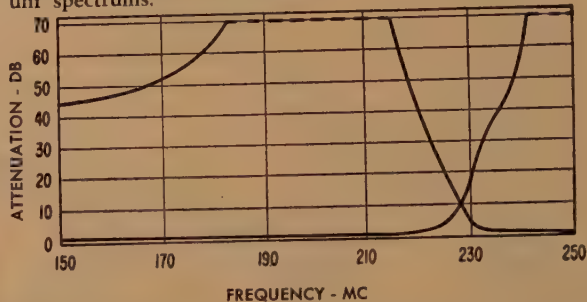
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	157-212	1.0	110-147	50	50	2	700
High & Low Pass	157-212	1.0	236-246	50	50	2	700
	236-246	1.0	157-212	50	50	2	700



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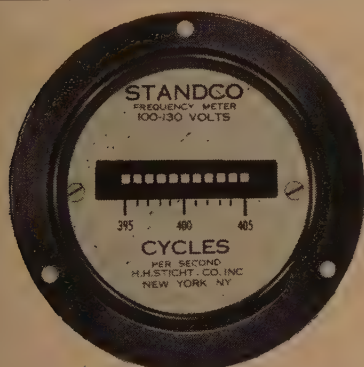
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AUTOMATIC CONTROL NEWS

by Dynamics Research Associates

dynamag

operational magnetic amplifiers are
widely used for signal amplification

The highly stable **dynamag** D-C Operational Magnetic Amplifier has linear, reversible polarity output and variable gain features. It has wide application in automatic feedback control systems and D-C instrumentation where amplifying and mixing low level signals are involved.

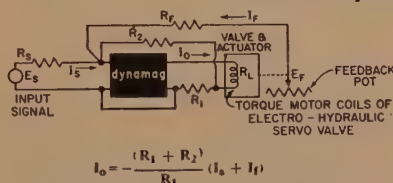
Many important features contribute to the wide acceptance of **dynamag**. Extremely reliable, magnetic toroidal cores and silicon diodes replace vacuum tubes in the **dynamag**. It is rugged, requires no maintenance, and needs no warm-up time. Models are available to meet MIL-E-5272A and MIL-T-27A requirements. High stability is another impor-

tant **dynamag** characteristic. Zero Drift is 0.2% of full scale for a temperature range of zero to 170° F. Zero Error is 1% of full scale for a 10% variation in supply voltage or frequency.

Its linearity is 1% of reading in linear range. Highly sensitive, the **dynamag** has a small signal power drain. No D-C power supply is required. Power gains up to 300 are practical.

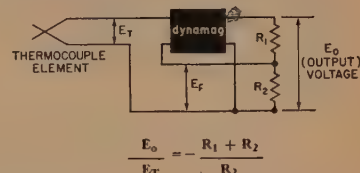
The versatile **dynamag** can be used as a lead-lag, summing or integrating element in servomechanisms; also as a D-C variable gain current mixing amplifier or D-C voltage amplifier for low level, low impedance signal source.

TYPICAL **dynamag** APPLICATIONS



Amplifier for an Electro-Hydraulic Servo-System

Provides an output current through the torque motor coils of the electro-hydraulic valve. Mixes input and feedback signals.



Amplification of a Low Level, Low Impedance Signal

Voltage feedback makes input impedance of amplifier high to signal source such as a thermocouple or a low impedance bridge circuit.

SPECIFICATIONS	dynamag Type Number			
	MA 61	MA 41	MA 101	MA 501
Power Supply (1.5 watts):				
CPS	60	400	1000	5000
VRMS	115	115	20	20
Max. Output, Milliwatts	21	62	160	160
Max. Output, Volts	5.5	10	12	12
Internal Impedance, Ohms	400	400	300	300
Input Coil Resistance, Ohms	140	100	50	50
Voltage Range of Linear Operation	3	8	10	10
Approx. Band Width, CPS	6	40	100	500

WE DESIGN SPECIAL MODELS TO MEET YOUR REQUIREMENTS

OTHER **dynamag** PRODUCTS

DRA also manufactures Differential and Servo Motor Magnetic Amplifiers, as well as saturable reactors, transistorized inverters, transistorized frequency converters, D-C regulated power supplies, and line voltage regulators.

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5	GM72	KM75*	KM75B*
10	GM78	KM81	KM81B
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40	GM90	KM93	KM93B

*Ripple: Less than 0.5%

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RIPPLE:
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Output.

REGULATION:
1/10 Load, 31 1/2 V
Full Load, 30 V.

FULLY PROTECTED
against:

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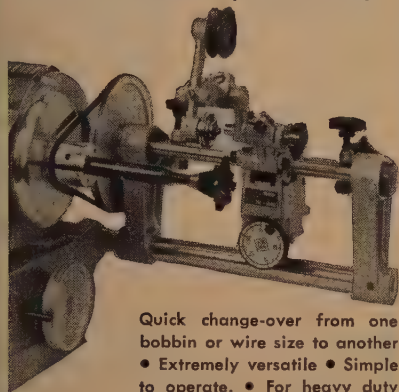


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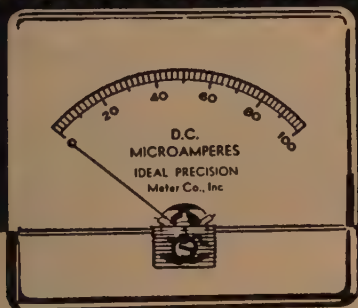
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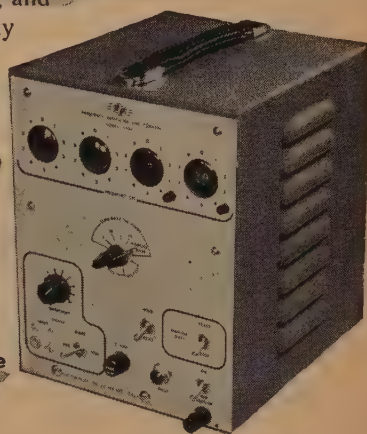
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Using cold cathode glow transfer tubes for counting and indication, Electro-Pulse counting and measuring equipment features the reliability inherent in simplified circuitry.

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MEGACYCLE PULSE GENERATOR MODEL 3450A

20 CPS to 2 Megacycles
 0.1 to 5 μ s pulse width
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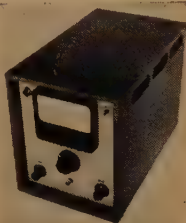


RANGE: 60 db • INPUT ATTENUATOR: 50 db. in steps of 5 or 10 db. • SENSITIVITY: 1 microvolt across 200 ohms for full scale deflection • AMPLIFIER FREQUENCIES: Wide-band, 400 cycles tunable $\pm 5\%$, 1000 cycles tunable $\pm 5\%$ • AMPLIFIER: Q 25 ± 5 • METER SCALES: VSWR 1-4, VSWR 3-10. DB 0-10 •

SIZE: 14 1/4" d, 8 1/2" w, 10 1/2" h • PRICE: \$195.00.

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10 KW. PULSED TRANSMITTER • Frequency 400-1200 Mc • Tuning Range 5%.



TWO CHANNEL • FREQUENCY: 215-235 Mcs. • POWER OUTPUT: 50 Watts Peak • SIZE: 5 1/2" dia. 4 1/4" long

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FREQUENCIES: 2.5, 5.0, 10.0, 15.0, 20.0, 25.0 Mc. • SENSITIVITY: better than 1.0 microvolt for standard output • SELECTIVITY: 10 Kc. • INPUT: dual • OUTPUT: 600 ohms and self contained speaker • TUNING EYE: zero beat indicator • SIZE: 14 1/4" d, 8 1/2" w, and 10 1/2" h • PRICE: 195.00

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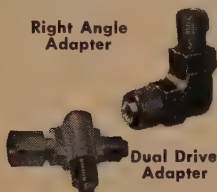
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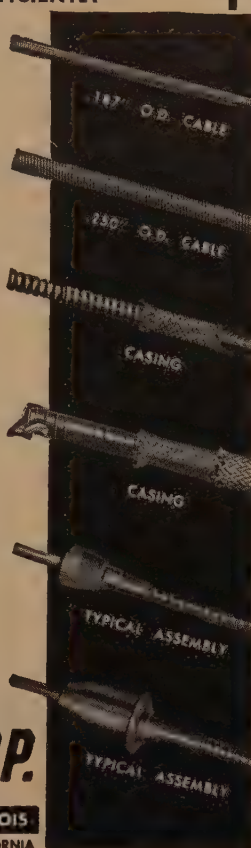


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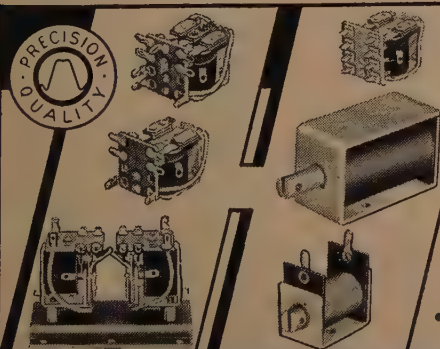
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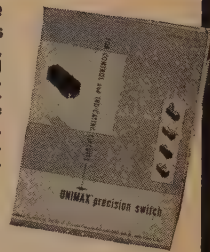
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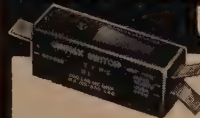
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power supplies
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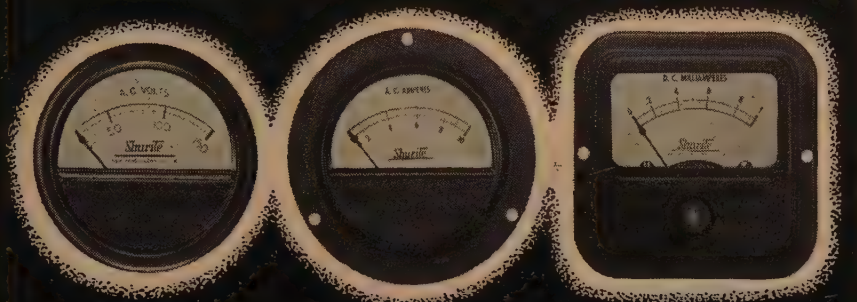
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AC or DC



850 Series
Shown actual size



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• **USES**—Plate current and voltage readings; battery charging and emergency lighting; transistor testing; radio kits; voltage regulators; transmitters; receivers, etc.

• **TYPES**—Ammeters, milliammeters, voltmeters. AC and DC. Resistance meters. AC are double-vane repulsion type with jeweled bearing. DC are polarized-vane solenoid type or moving magnet construction.

• **CASES**—Newest is Series 850, clear plastic rectangular type with easy-to-read dial. Long-time favorites are three basic metal case types, all requiring 2-5/32"

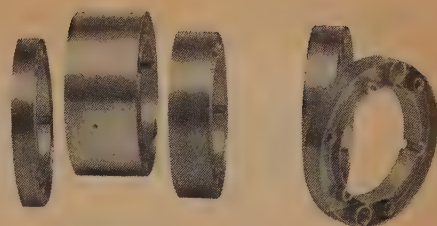
panel hole. Zero adjuster available on many DC models. Also pocket meters.

• **PERFORMANCE**—Fast response and ability to duplicate readings—by far the best torque-to-weight ratio in its field. Accuracy well within the standard 5%. Each meter guaranteed for one year.

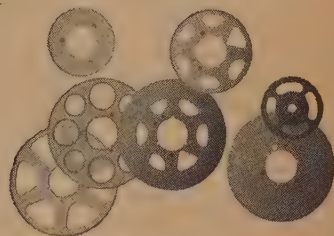
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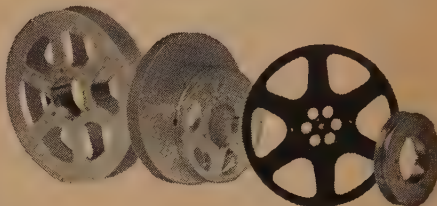
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Band Pass	10KC to 300MC	200KC to 220MC	200KC to 300MC	1KC to 50MC	200KC to 220 MC
Input Impedance	135 ohms	90 ohms	50 ohms	90 ohms	90 ohms
Output Impedance	150 ohms	185 ohms	90 ohms	90 ohms	185 ohms
Gain	18 DB	12 DB	10 DB	70 DB	16 DB (90 ohm load)
Rise Time	2 x 10 ⁹ sec	.0025 u-sec.	.0016 u-sec.	.001 u-sec.	.0025 u-sec.
Average Power	-----	3 Watts CW	100 W. CW	-----	-----
Peak Pulse Power	-----	337 Watts (Negative pulse into 185 ohm load)	-----	-----	-----
RMS Voltage out—across rated load impedance	3.5 V	22 Volts	95 Volts	1 Volt	12 volts
Peak to Peak Voltage—across rated load impedance	7 V	62 Volts	270 Volts	2.8 Volts	33 volts
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*A modified version of the M-500A which operates only in the linear mode, is the M-500 which is available at a price of \$330.
All Prices F.O.B., Mineola, New York



A M-395
B Std. size of M-530, M-500, M-500A, M-510
C M-400



I-F AMPLIFIERS



SPECIFICATIONS OF STANDARD UNITS

	M-260	M-230	M235
Band center.....	60 mc.....	30 mc.....	30 mc.....
Band width.....	10 mc.....	2 mc.....	10 mc.....
Voltage gain.....	90 db.....	110 db.....	90 db.....
Input and Output Impedance.....	50 ohms.....	50 ohms.....	50 ohms.....

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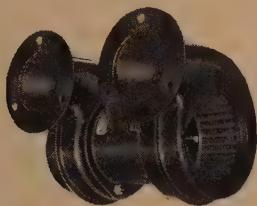
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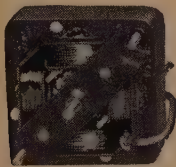
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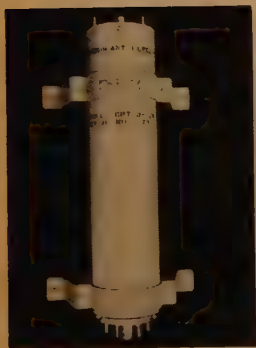


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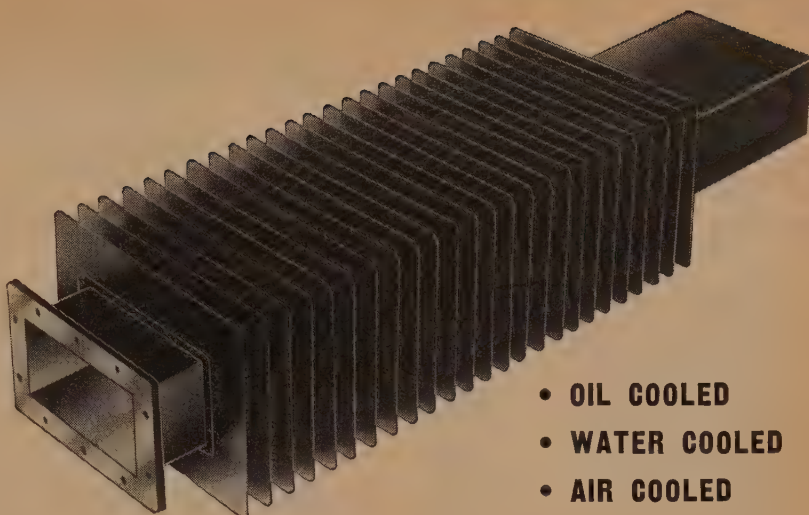
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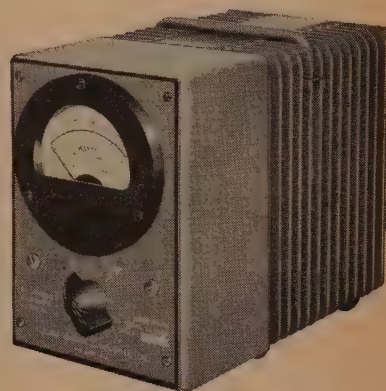
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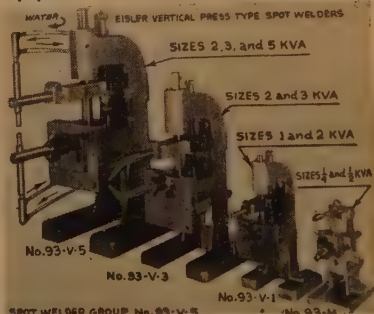
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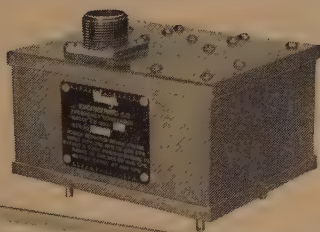
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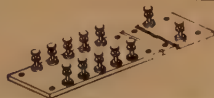
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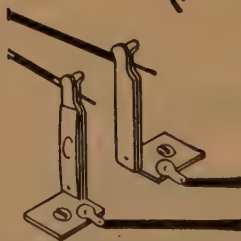
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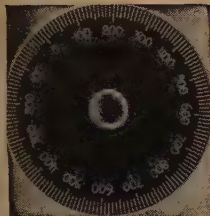
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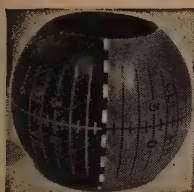
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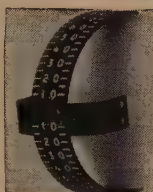


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0-30	0-24	2	SP 30-24	Selenium	\$318.
0-30	0-24	.25	SR 30-24	Selenium	\$345.
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0-35	0-15	.25	GR 35-15	Germanium	\$380.
0-35	0-15	.03	GS 35-15	Germanium	\$395.
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0-90	0-8	2	GP 90-8	Germanium	\$360.
0-28	0-70	full wave rectified DC	NO 28-70	Silicon	\$575.
0-28	0-55	3	NP 28-55	Silicon	\$695.
0-28	0-55	.5	NR 28-55	Silicon	\$745.
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0-120	0-13	2	GP 120-13	Germanium	\$710.
0-120	0-13	.5	GR 120-13	Germanium	\$735.
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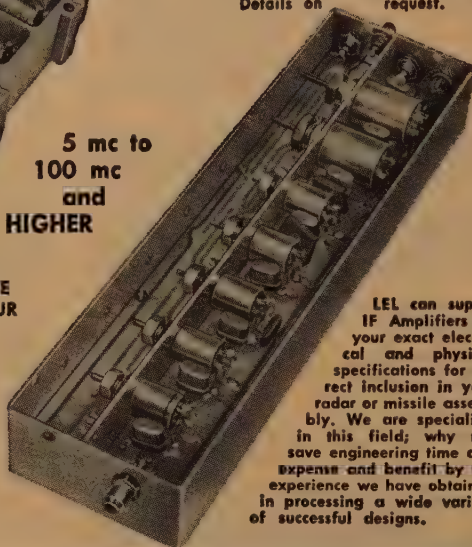
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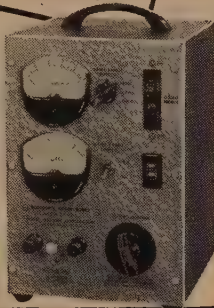
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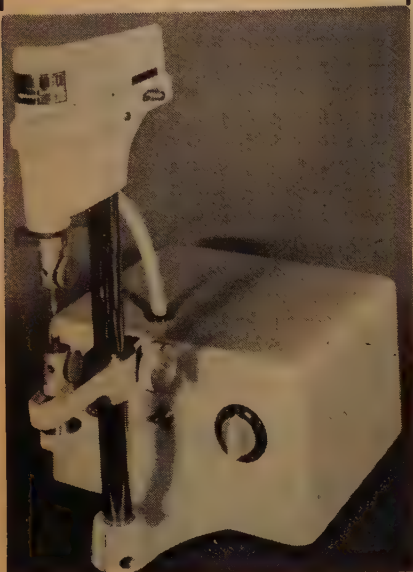
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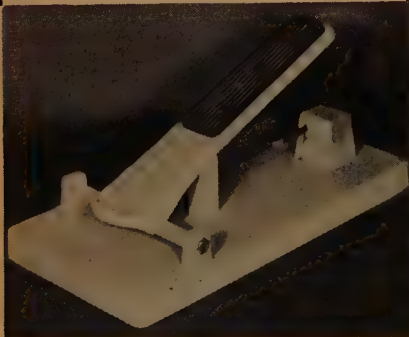


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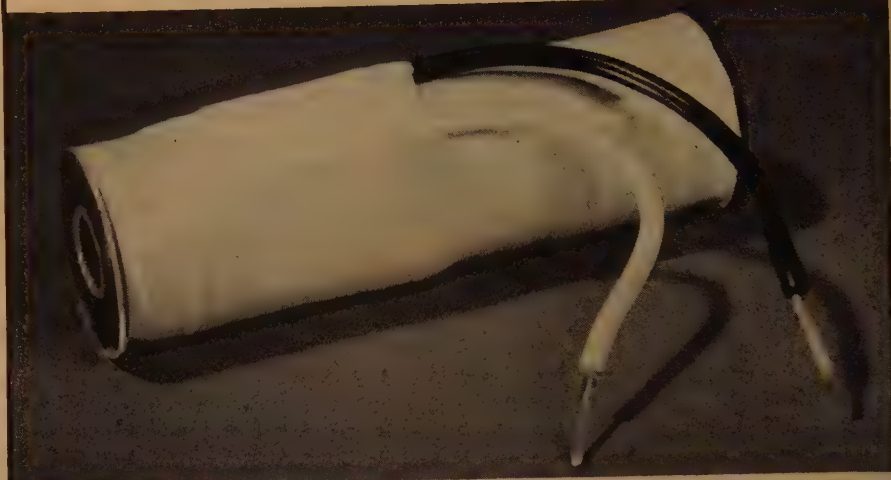
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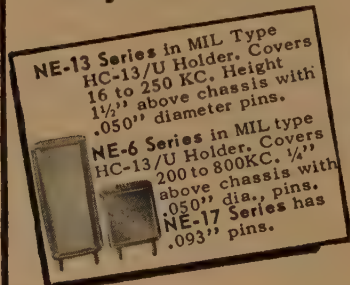
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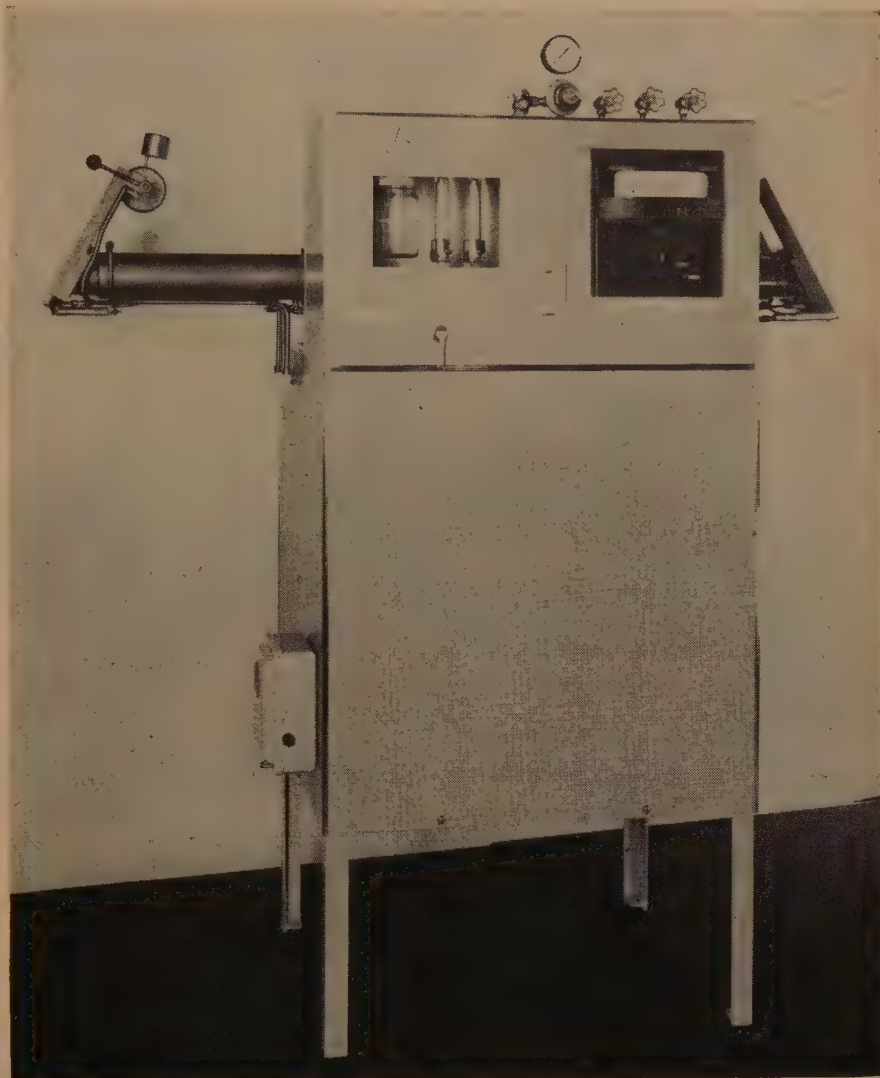
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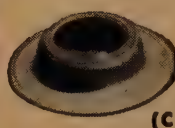
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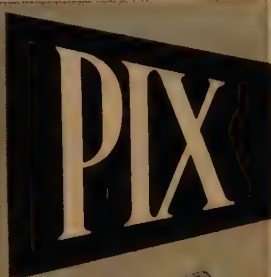
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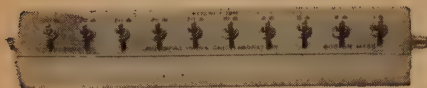
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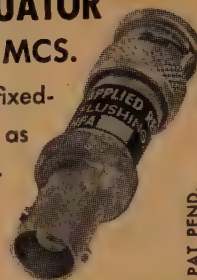
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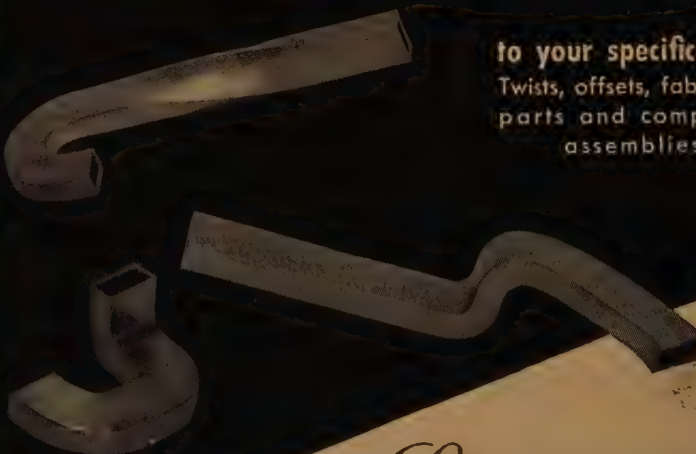
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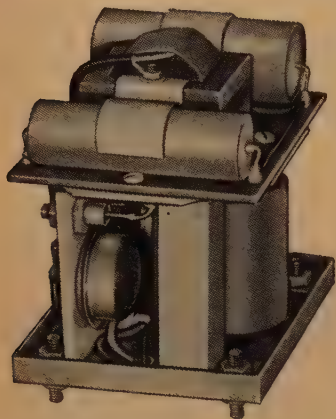
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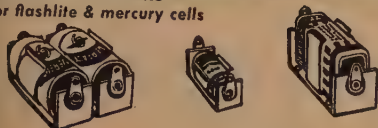
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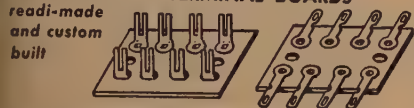
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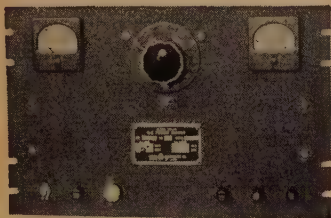
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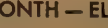
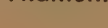
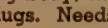
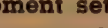
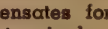
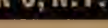
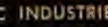
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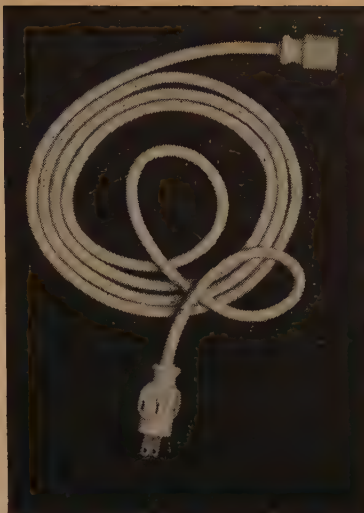
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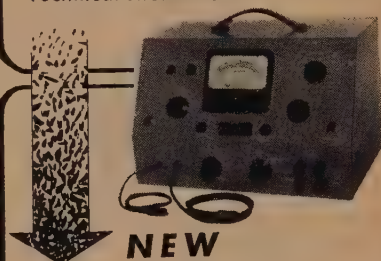
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of Your Components for uniform performance, complete protection against:

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Write for "Megpot" Bulletin of available models.

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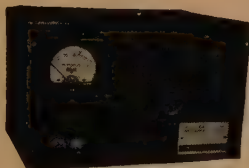


RACK MOUNTED . . . BENCH TYPE CABINETS

Model	Voltage Range	Current Range	Regulation
21K	1-10 KV	10 ma @ 5 KV	...
21KR	1-10 KV	10 ma @ 5 KV	1/2%
21M	1-12 KV	6 ma @ 10 KV	...
21MR	1-12 KV	6 ma @ 10 KV	1/2%
22C	3-26 KV	2 ma @ 18 KV	...
22CR	3-26 KV	2 ma @ 18 KV	1/2%
22M	5-30 KV	3 ma @ 20 KV	...
22MR	5-30 KV	3 ma @ 20 KV	1/2%
23C	5-40 KV	1.3 ma @ 25 KV	...
23CR	5-40 KV	1.3 ma @ 25 KV	1/2%
23M	5-45 KV	1.5 ma @ 30 KV	...
23MR	5-45 KV	1.5 ma @ 30 KV	1/2%
24C	5-50 KV	1 ma @ 35 KV	...
24CR	5-50 KV	1 ma @ 35 KV	1/2%
24M	5-50 KV	2 ma @ 30 KV	...
24MR	5-50 KV	2 ma @ 30 KV	1/2%
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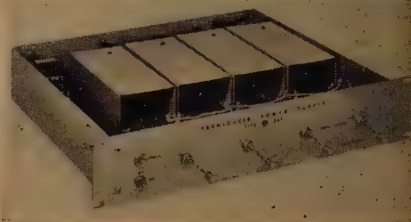
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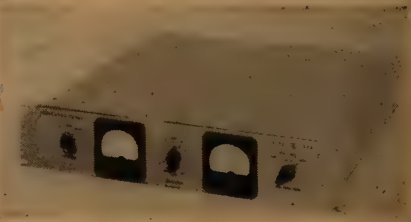
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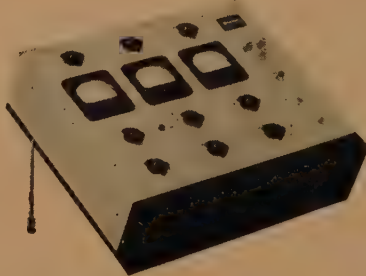


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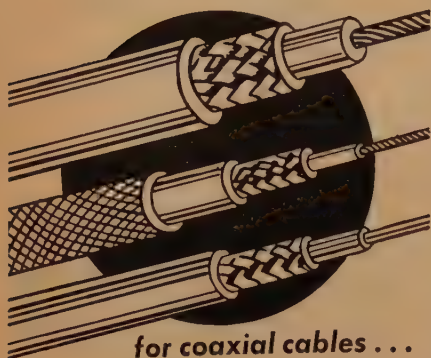
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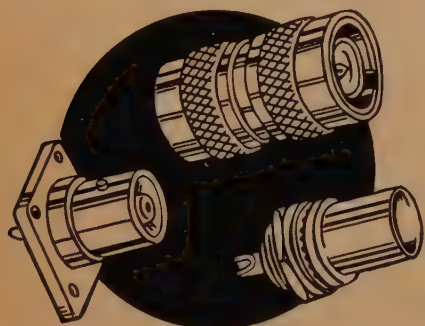
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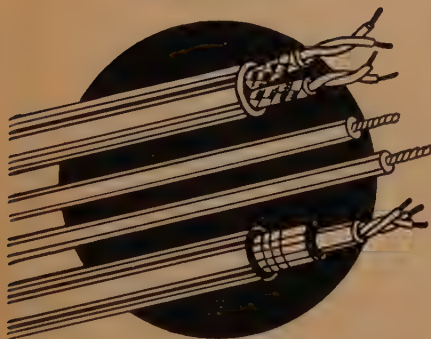
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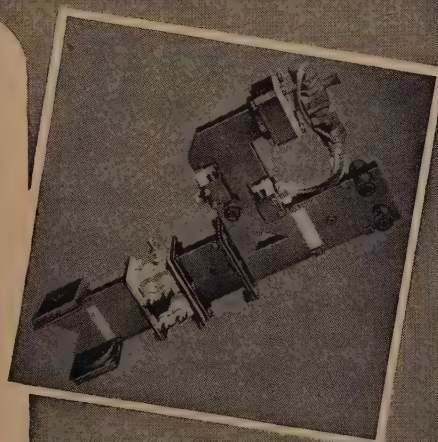
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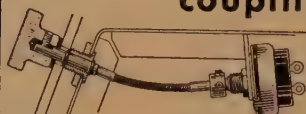


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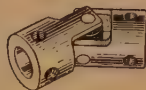
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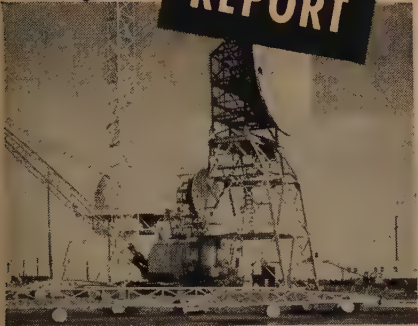
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FIELD REPORT



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These kits include

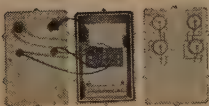
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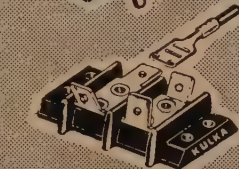
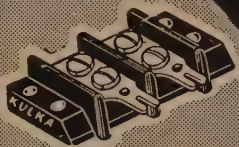
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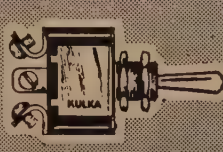


TERMINAL BLOCKS (Left): Large line of molded, barrier type, in varied sizes, materials, and terminals. New "KLIPTITE" style (left bottom) with angled tabs made for AMP, self-locking wire terminals.

TOGGLE SWITCHES (Below): Aircraft type, Single and Double Pole. Bakelite housing. Screw terminals or soldering lugs. One-hole mounting. DC, or AC up to 1600 cycles.

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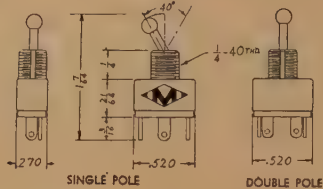


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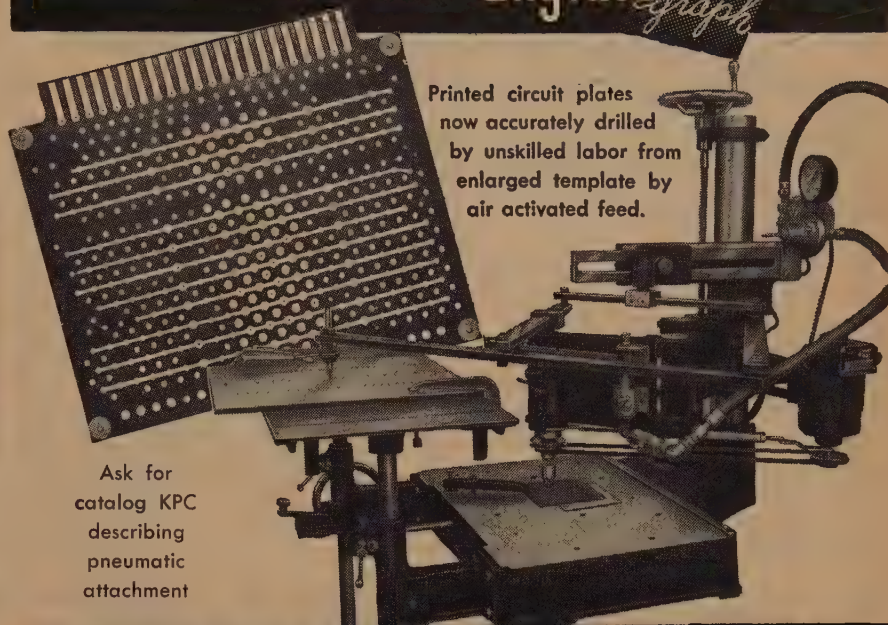
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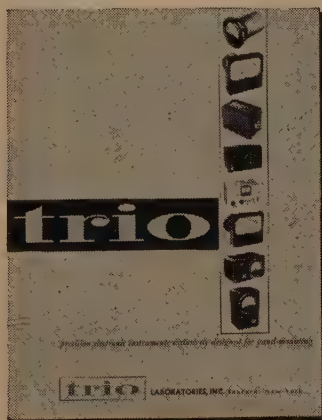


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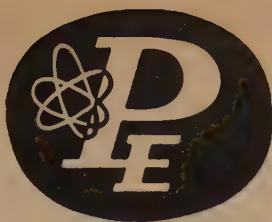
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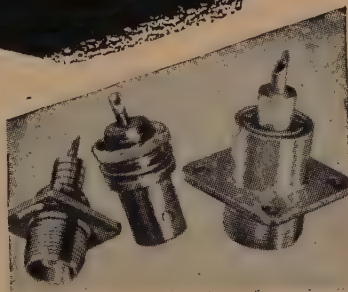
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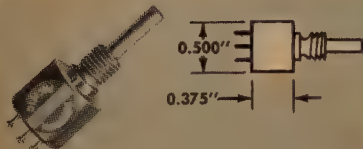
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PRECISION POTENTIOMETERS

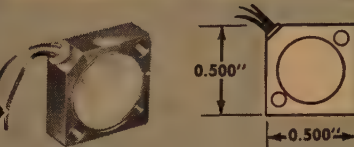
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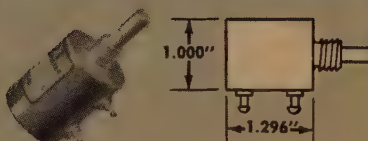
MODEL 300-00, one of the many Trimming Potentiometers



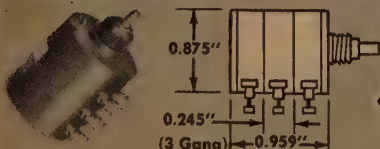
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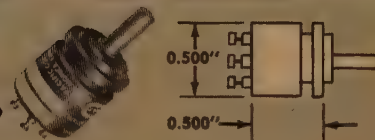
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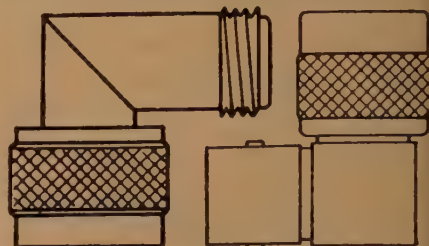
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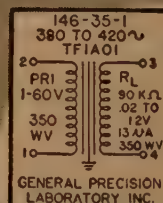
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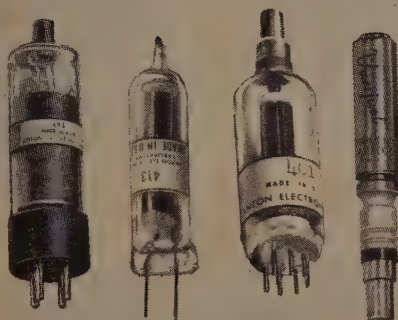
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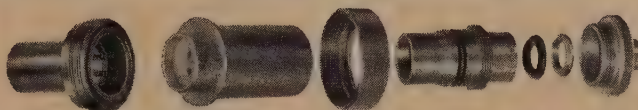
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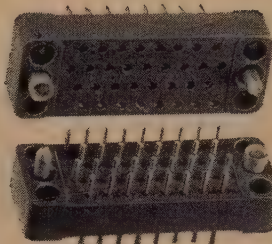
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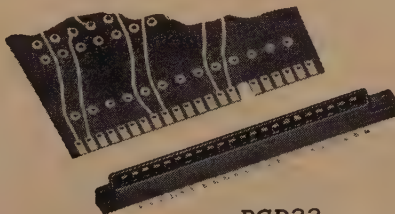
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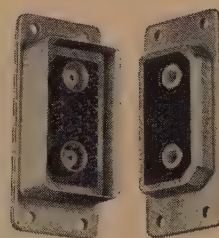


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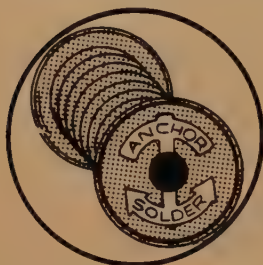
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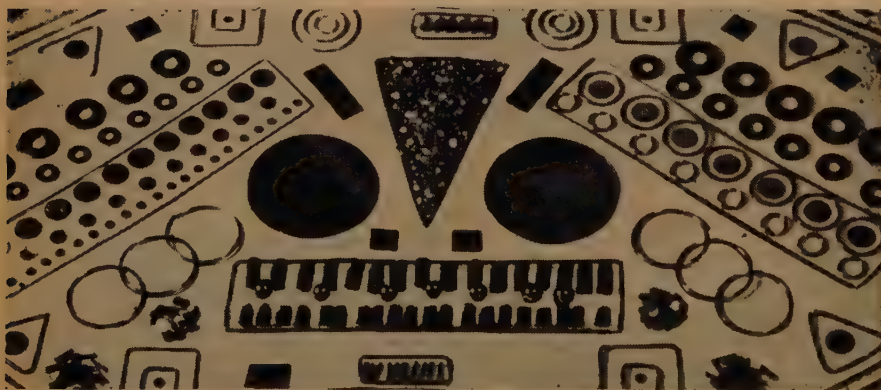
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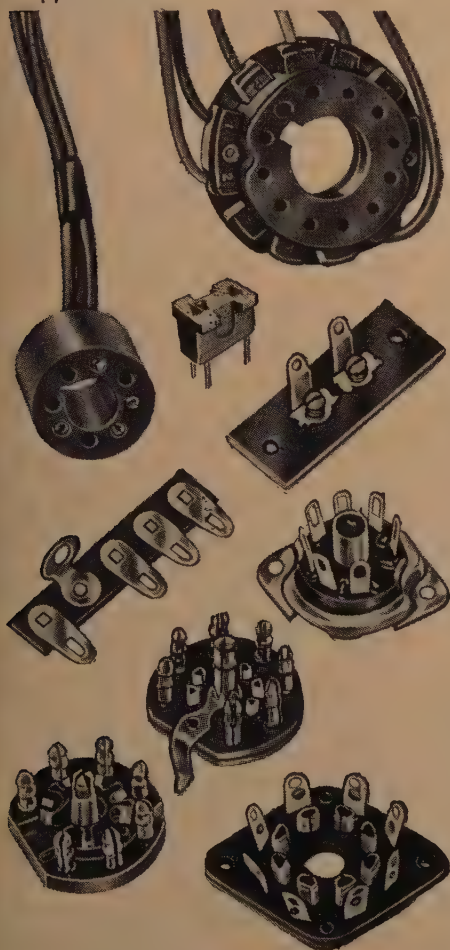
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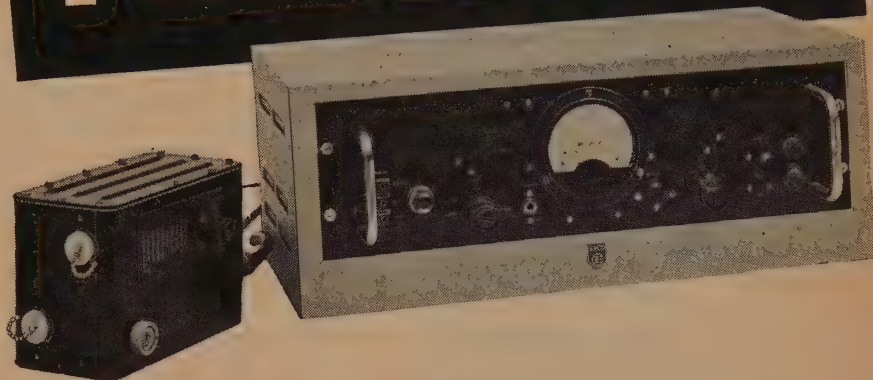
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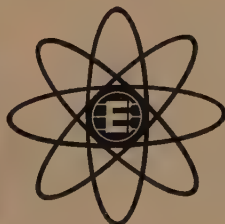
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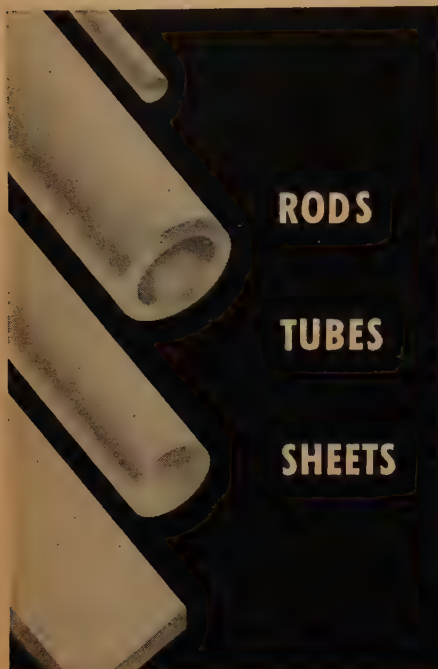
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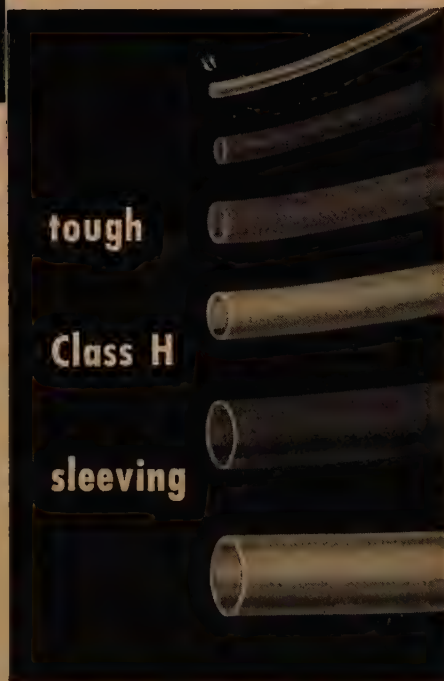
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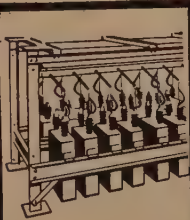
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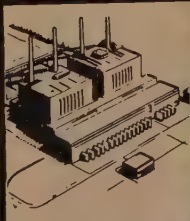
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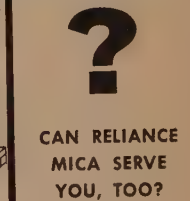
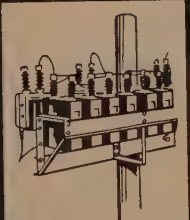
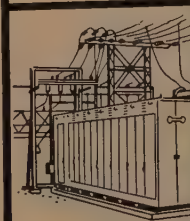
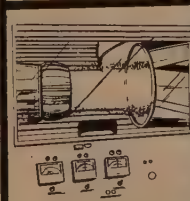


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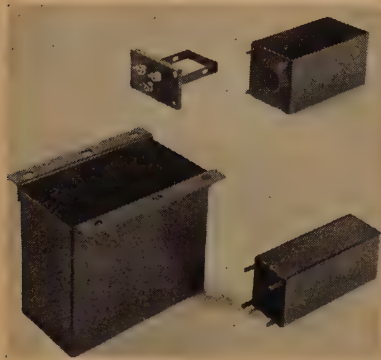
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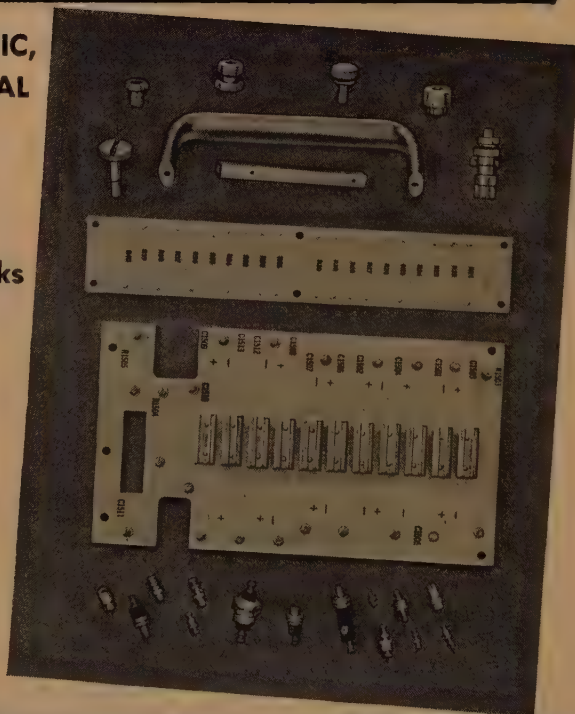
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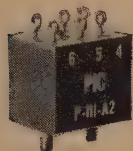


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POLYPHASE

Type A
Herm Sealed
Chassis Mtg.
21/32 x 15/16 x 13/16



Type C
Herm Sealed
Plug in
3/4 Dia x 25/32



STANDARD STOCK PULSE TRANSFORMERS for Military or Commercial Applications

Type CA
Herm Sealed
Chassis Mtg
3/4 Dia x 25/32
1 1/8 Mtg



Type K
Potted
Plug in
3/4 Dia x 25/32



Type L
Herm Sealed
Wire Leads
9/16 Dia x 7/8



Type M
Molded Epoxy
Chassis Mtg
3/4 Dia x 13/16
x 1 Mtg



Type WX
Herm Sealed
High Temp
7/8 x 7/8 x 1/2



Std. Cat. Nos. Example: Transformer Designation: 81 Case Type: C	Turns Ratios	Nominal Pulse Width for B.O. Operation μ s	Nominal Open Circuit Inductance mh #1 Winding
80	1:1:1	.07	.04
81	1:1:1	.1	.15
82	1:1:1	.25	.31
83	1:1:1	.5	1.6
84	1:1:1	1	6.0
85	1:1:1	2	25
86	1:1:1	5-25	125
87	1:2:4		.15
88	1:3:10		.15
89	1:3:12	Coupling Applications	.57
90	1:2:4		2.4
91	1:3:6		2.4
92	1:2:6		5.5

Leakage Inductance Ref. to Winding #1 μ h		DC Saturation Current Bases on 3000 Gauss at 25°C ma in Primary	Pulse Repetition Rate Std. B.O. with 5687 Tube			Frequency Response Winding #1 to #2 #2 Load 600 Ohms			Matching Impedances Allowing 10% Droop at Nominal Pulse Width Ohms
#2	#3		P.W. μ s	Duty Cycle % Max. No. P.W. Reduction	PRF Max. mc	Center Frequency Fo Approx. mc	1 db down mc	3 db down mc	
1.5	2.0	1600							
1.8	2.6	800	.1	20	2	1	.15-7	.074...	124
3	3.8	540	.25	20	1	.3	.07-6.7	.033...	150
5.5	11	228	.5	20	.3	.1	.012-2.4	.006-5.1	360
24	48	124	1	25	.2	.03	.003-570	.002-1.1	680
100	250	64	5	40	.1	.02	.0006-.13	.0003-.26	1500
500	1800	28	10	40	.05	.002	.0002-.04	.0001-.08	2600
2.8	1.8	800							
2.0	3.3	800							
3.8	7	400		Coupling Applications					
8.5	21	200							
9	24	200							
16	60	132							

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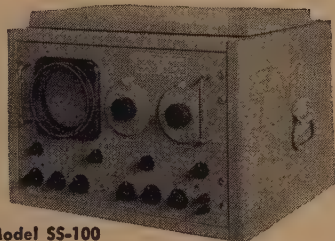
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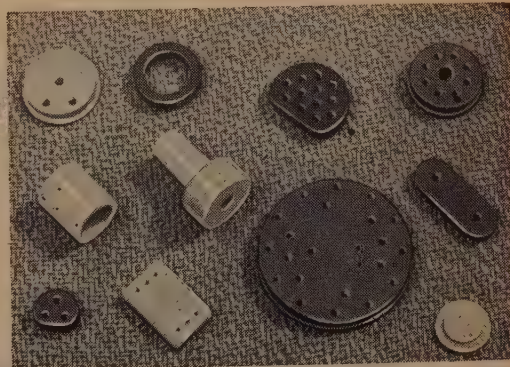
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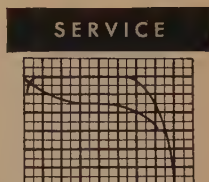
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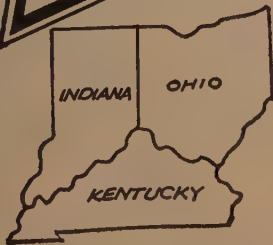
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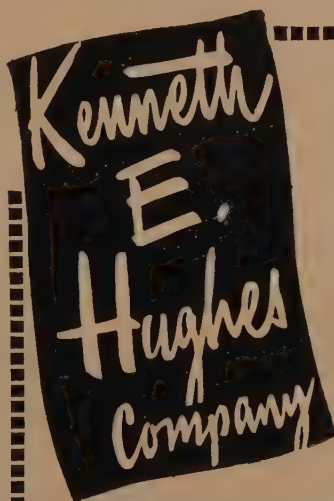
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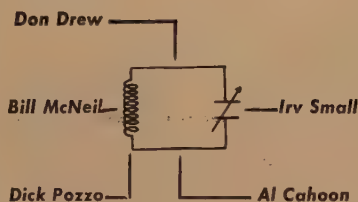
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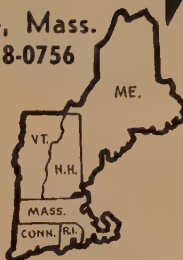
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CAP ELECTRONICS INC.,
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COMMUNICATIONS EQUIPMENT
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COMPASS ELECTRONICS CO.,
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Concord Radio Corp.,
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EMELTONE ELECTRONICS CO.,
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EMPIRE ELECTRONICS,
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FAY-BILL DISTRIBUTING CO.,
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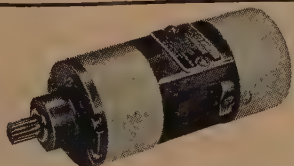
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- 12121 Bendix
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- 12126-2-A Bendix
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Output: 125.5 VAC; 1.5 amps. 400 cycles single phase, 141 Va. Input: 20-30 VDC. 18-12 amps. Voltage and frequency regulated. **\$49.50**
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- 778 Bendix
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Output: 115 volts AC; 750 VA, 3 phase, 400 cycle, .90 pf and 26 volts, 50 VA single phase, 400 cycle, .40 pf. Input: 27.5 VDC 60 amps. cont. duty, 6000 rpm. Voltage and frequency regulated. **\$59.50**
- 10339 Leland
Output: 115 volts; 190 VA; single phase; 400 cycle, .90 pf and 26 volts; 60 VA; 400 cycle, .40 pf. Input: 27.5 volts DC, 18 amps. cont. duty, voltage and freq. regulated. **\$49.50**
- 10486 Leland
Output: 115 VAC; 400 cycles; 3-phase; 175 VA; .80 pf. Input: 27.5 DC; 12.5 amps.; cont. duty **\$70.00**
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INVERTERS

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Output: 125 volts, 100 voltamp, 400 cycle, single phase, 1.0 pf. Input: 24 volts, 11 amp. Continuous duty. Voltage and frequency regulated. **\$39.95**
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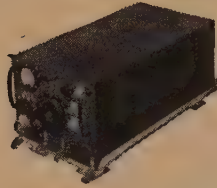
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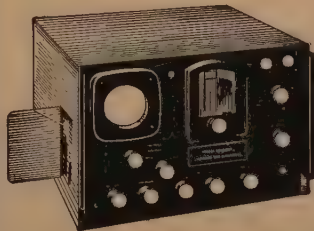
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2J22	4.00	6C21	25.00	869B	18.00
2J27	4.00	6J6W	.75	872A	1.00
2J31	11.00	6K4	2.25	874	.60
2J32	11.00	6SU7GT	2.00	876	.70
2J33	29.50	7B7	4.50	878	.50
2J34	12.50	7C22	60.00	917	1.30
2J36	20.00	7C23	65.00	919	1.70
2J39	25.00	12AT7WA	3.00	927	1.00
2J41	12.50	12AU7WA	2.50	954	.35
2J42	60.00	12AY7	1.50	956	.35
2J48	10.00	12DP7A	20.00	957	.35
2J49	27.50	12GP7	15.00	958A	.35
2J50	35.00	15E	1.20	959	1.25
2J51	200.00	15R	.95	991/NE16	.25
2J56	35.00	16K-21	1.00	E1148	.25
2J61	22.00	26A7GT	3.00	1280	.95
2J61A	30.00	35T	6.00	HK1554	75.00
2J62	5.00	35TG	2.25	1603	5.00
2J62A	50.00	HK-54	3.50	1612	1.50
2K22	13.50	FG-57	9.50	1613	1.25
2K23	10.00	RK-60/1641	1.25	1616	1.25
2K23	12.00	QK-61	20.00	1619	.45
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2K29	25.00	HY-65	1.00	1626	.25
2K33	100.00	RK-65/5D23	7.50	1851	1.80
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2K54	15.00	304TL	12.50	8025	3.75
2K55	14.00	307A/RK75	.60	PD8365	96.00
2K56	50.00	3T327A	3.50	9001	1.52
2V3G	.80	350B	2.00	9002	.90
2X2	.30	394A	2.50	9003	1.25
2X2A	1.00	WE-16A	25.00	9004	.35
3A4	.50	WE-417A	3.50	9005	2.75
3BP1	1.50	WE-417A	12.50	9006	.25
3B22	1.35	446B	1.95	Thousands of other tubes	
3C22	59.50	4L-502A	1.25		
3C23	3.95	559	.40		
3C24/24G	2.00	HY-615	.45		
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3C31/C1B	1.00	WE-703A	1.00		
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3C45	6.50	WE-705A	.75		
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PRI: 117 volt, 50/60 cycle

(Some tapped for lower and/or higher voltages)

Stock No.	Secondary	Net Each
TF-1.....	1.5 volts @ 0.3 Amps.	\$1.00
TF-2.....	6.3 volts @ 1.2 Amps.	.75
TF-3.....	6.3 volts C. T. @ 1.5 Amps.	2.25
*TF-4.....	6.3 volts C. T. @ 5 Amps.	2.95
*TF-5.....	6.3 volts C. T. @ 6 Amps.	3.50
*TF-7.....	6.3 volts C. T. @ 10 Amps.	4.90
*TF-8.....	6.5 volts @ 10 Amps.	3.90
*TF-9.....	6.3 volts @ 5 Amps.	4.95
*TF-10.....	6.3 V. C. T. @ 7.5 Amps.	6.50
*TF-11.....	6.3 volts @ 1.2 Amps.	6.50
*TF-11.....	6.3 V. C. T. @ 8 Amps.	6.50
*TF-12.....	6.3 V. C. T. @ 8 Amps.	6.50
*TF-12.....	5 V. C. T. @ 3 Amps.	4.55
*TF-12.....	5 V. C. T. @ 3 Amps.	4.55
*TF-13.....	6.3 volts @ 1.75 Amps.	4.55
*TF-13.....	6.3 V. C. T. @ 5 Amps.	4.55
*TF-13.....	6.3 V. C. T. @ 1 Amps.	4.25
*TF-13.....	2.5 V. C. T. @ 10 Amps.	4.25
TF-14.....	5 V. C. T. @ 4 Amps.	4.75
TF-14.....	6.3 V. C. T. @ 10 Amps.	4.75
TF-15.....	6.3 volts @ 6 Amps.	4.75
TF-15.....	6.3 V. C. T. @ 7 Amps.	6.50
TF-15.....	6.3 V. C. T. @ 6 Amps.	6.50
TF-15.....	22 volts @ 1.4 Amps.	6.50
TF-16.....	6.3 V. C. T. @ 10 Amps.	4.50
TF-16.....	6.3 V. C. T. @ 1 Amps.	4.50
TF-16.....	6.3 V. C. T. @ 1 Amps.	4.50
TF-17.....	6.3 V. C. T. @ 2 Amps.	4.95
TF-17.....	6.3 V. C. T. @ 3 Amps.	4.95
TF-17.....	6.3 V. C. T. @ 10 Amps.	4.95
TF-17.....	6.3 V. C. T. @ 5 Amps.	4.95
TF-18.....	6.3 volts @ 1 Amps.	8.95
TF-18.....	5 volts @ 4 Amps.	8.95
TF-18.....	5 volts @ 2 Amps.	8.95
TF-18.....	6.3 volts @ 0.6 Amps.	8.95
TF-18.....	6.3 volts @ 8.8 Amps.	8.95
TF-18.....	6.8 volts @ 6.2 Amps.	8.95
TF-19.....	6.3 V. C. T. @ 10 Amps.	11.50
TF-19.....	6.3 V. C. T. @ 5.6 Amps.	11.50
TF-19.....	5 volts @ 6 Amps.	11.50
TF-19.....	6.8 volts @ 16 Amps.	11.50
TF-19.....	5 volts @ 2 Amps.	11.50
TF-19.....	5 volts @ 4 Amps.	11.50

PRI: 220 volts, 50/60 cycle

(Some tapped for lower and/or higher voltages)

*TF-201.....	2.5 V. C. T. @ 10 Amps.	4.95
*TF-202.....	5 volts @ 3 Amps.	5.50
*TF-203.....	5.05 V. C. T. @ 27 Amps.	12.50
*TF-204.....	5 V. C. T. @ 30 Amps.	8.50
*TF-206.....	6.3 volts @ 1 Amps.	2.50
*TF-207.....	6.3 volts @ 3.6 Amps.	4.00
*TF-208.....	6.0 V. C. T. @ 5.6 Amps.	4.95
*TF-209.....	7.5 V. C. T. @ 8 Amps.	4.95
*TF-210.....	18 volts @ 1.5 Amps.	3.50
*TF-211.....	2.5 V. C. T. @ 21 Amps.	29.95
*TF-211.....	5 V. C. T. @ 15 Amps.	29.95
*TF-212.....	2.5 volts @ 10 Amps.	12.50
*TF-212.....	6.3 volts @ 7.8 Amps.	12.50
*TF-213.....	6.3 volts @ 4.5 Amps.	6.50
*TF-213.....	5 V. C. T. @ 3 Amps.	6.50
TF-214.....	6.3 volts @ 5.5 Amps.	7.95
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*TF-216.....	6.3 volts @ 0.3 Amps.	7.00
*TF-216.....	6.3 volts @ 3.6 Amps.	7.00
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*TF-217.....	5 V. C. T. @ 3 Amps.	6.50
*TF-217.....	18 volts @ 1.75 Amps.	6.50
*TF-218.....	5 volts @ 8.4 Amps.	8.95
*TF-218.....	6.3 volts @ 3 Amps.	8.95
*TF-218.....	5 volts @ 8.4 Amps.	8.95
*TF-218.....	6.3 volts @ 2 Amps.	8.95
*TF-219.....	5 V. C. T. @ 4 Amps.	7.50
*TF-219.....	6.3 volts @ 2.5 Amps.	7.50
*TF-219.....	6.3 V. C. T. @ 1 Amps.	7.50
*TF-219.....	6.3 volts @ 1 Amps.	7.50

SOLA TYPE CONSTANT VOLTAGE FILAMENT TRANSFORMERS

TFC-251	PRI: 396 to 528 v., 60 cy. SEC: 5.0 V. C. T. @ 20 amps. INSULATION: 15,000 V. RMS test	24.95
TFC-252	PRI: 187 to 253 V., 60 cy. SEC: 5.05-5.05 @ 33 amps INSULATION: 3000 V. RMS test	45.00
TFC-253	PRI: 195 to 244 V., 60 cy. SEC: 7.65 V. C. T. @ 48 to 54 amps. INSULATION: 1500 V. RMS test	55.00

PLATE TRANSFORMERS

Stock No.	Secondary	Net Each
*TPL-101.....	PRI: 117 Volt, 60 cycles 1000 V. C. T. @ 450 Ma DC	12.50
*TPL-201.....	PRI: 208/230 volts, 50/60 cycles 374 V. C. T. @ 106 Ma DC	4.95
*TPL-202.....	800 V. C. T. @ 53 Ma DC	4.75
*TPL-203.....	545-0-600 V. @ 354 Ma DC	7.50
*TPL-204.....	600 V. C. T. @ 450 Ma DC	8.95
*TPL-206.....	945 V. C. T. @ 300 Ma DC	10.50
TPL-207.....	3300 (or 2600) V. DC @ 3 amps (3 phase input)	295.00
*TPL-208.....	3280 V. C. T. @ 225 Ma DC	39.95
*TPL-209.....	3610 V. C. T. @ 650 Ma DC	75.00
*TPL-210.....	4600 V. C. T. @ 475 Ma DC	100.00
*TPL-211.....	5500 V. C. T. @ 2 amps.	150.00
*TPL-212.....	5840 V. C. T. @ 736 Ma DC	125.00
*TPL-213.....	384-0-384 V. @ 736 Ma DC	125.00
*TPL-401.....	470-0-470 V. @ 28 Ma DC	7.50
	PRI: 480/460/440 V., 50/60 cy. Delta conn. from a 3 phase line.	
	SEC: Working 10,150 volts. Delivers from a 3 phase wye full wave circ., 3008 volts @ 7.6 amps or 2582 volts @ 8.83 amps.	
	INSULATION: 22,000 VOLTS NET WGT: 2100 lbs. (Approx.)	Write

POWER TRANSFORMERS

PRI: 117 volts, 50/60 cycle

	(Some tapped for slightly higher and/or lower voltages)	
*TPO-101.....	720 V. C. T. @ 350 Ma DC	7.95
*TPO-102.....	117 volts @ 400 Ma DC	7.50
*TPO-103.....	6.3 volts @ 3.5 Amps.	7.50
*TPO-103.....	150-0-150 @ 1 Ma DC	4.95
TPO-104.....	200-0-200 @ 110 Ma DC	4.95
*TPO-105.....	6.4 volts @ 3.1 Amps.	4.50
*TPO-105.....	460 V. C. T. @ 50 Ma DC	5.95
*TPO-106.....	6.3 volts @ 2.5 Amps.	6.50
*TPO-106.....	535 V. C. T. @ 100 Ma DC	6.50
*TPO-107.....	5 volts @ 2.5 Amps.	6.50
*TPO-107.....	1500 volts @ 5 Ma DC	6.50
TPO-108.....	300-0-300 @ 150 Ma DC	3.95
TPO-109.....	5 V. C. T. @ 3 Amps.	3.95
TPO-109.....	325 volts @ 40 Ma DC	3.95
TPO-110.....	5 V. C. T. @ 2 Amps.	3.95
TPO-110.....	5 V. C. T. @ 2 Amps.	3.95
TPO-110.....	5 V. C. T. @ 2 Amps.	4.50
*TPO-111.....	720 V. C. T. @ 70 Ma DC	4.95
*TPO-111.....	6.4 volts @ 3.5 Amps.	4.95
*TPO-111.....	6.4 volts @ 1.5 Amps.	4.95
TPO-112.....	395-0-395 V. @ 10 Ma DC	4.95
TPO-112.....	40-65 volts @ 1 Ma DC	4.95
TPO-113.....	6.3 volts @ 10.8 Amps.	4.95
TPO-113.....	5 volts @ 3 Amps.	4.95
TPO-113.....	5 volts @ 2 Amps.	4.95
TPO-113.....	400-0-400 V. @ 310 Ma DC	4.95
TPO-114.....	6.3 volts @ 10.6 Amps.	4.95
TPO-114.....	5 volts @ 5 Amps.	4.95
TPO-114.....	5 volts @ 2 Amps.	4.95
TPO-114.....	430 V. C. T. @ 600 Ma DC	16.50
TPO-114.....	6.3 V. C. T. @ 12.5 Amps.	16.50
TPO-114.....	6.3 V. C. T. @ 4 Amps.	16.50
TPO-114.....	5 V. C. T. @ 3 Amps.	16.50
TPO-116.....	460/435 volts @ 450 Ma DC	14.95
TPO-116.....	6.3 V. C. T. @ 4 Amps.	14.95
TPO-116.....	6.3 V. C. T. @ 4 Amps.	14.95
TPO-116.....	5 V. C. T. @ 4 Amps.	14.95
TPO-117.....	316-0-316 V. @ 320 Ma DC	13.75
TPO-117.....	6.3 volts @ 6 Amps.	13.75
TPO-117.....	6.3 volts @ 4.3 Amps.	13.75
TPO-117.....	6.3 volts @ 7 Amps.	13.75
TPO-117.....	6.3 volts @ 7.2 Amps.	13.75
TPO-118.....	225-0-225 V. @ 80 Ma DC	36.00
TPO-118.....	630 volts @ 20 Ma DC	36.00
TPO-118.....	6.3 volts @ 90 Ma DC	36.00
TPO-118.....	6.3 volts @ 1.3 Amps.	36.00
TPO-118.....	6.3 volts @ 5.6 Amps.	36.00
TPO-118.....	5 volts @ 2 Amps.	36.00
TPO-118.....	5 volts @ 2 Amps.	36.00
TPO-119.....	300 V. C. T. @ 200 Ma DC	25.00
TPO-119.....	1850 volts @ 3 Ma DC	25.00
TPO-119.....	2800 volts @ .02 Ma DC	25.00
TPO-119.....	2.5 volts @ 2 Amps.	25.00
TPO-119.....	2.5 volts @ 2 Amps.	25.00
TPO-119.....	2.5 volts @ 2 Amps.	25.00
TPO-119.....	5 volts @ 3 Amps.	25.00
TPO-119.....	6.3 volts @ 7 Amps.	25.00
TPO-119.....	6.3 volts @ 2.5 Amps.	25.00

POWER TRANSFORMERS

PRI: 117 volts, 50/60 cycle

	(Some tapped for slightly higher and/or lower voltages)	
Stock No.	Secondary	Net Each
TPO-1-201	PRI: 115 or 230 V., 50/60 cy. SEC: 780 V. C. T. @ 50 Ma DC	
	800 volts @ 4 Ma DC	
	6.3 V. C. T. @ 3.2 Amps.	
	6.3 volts @ 0.6 Amps.	
	5 volts @ 2 Amps.	
	5 volts @ 2 Amps.	14.95
	5 volts @ 2 Amps.	14.95
	PRI: 208/230 volts, 50/60 cycles	
*TPO-201.....	1068 V. C. T. @ 300 Ma DC	28.50
*TPO-202.....	1655-0-1655 V. @ 283 Ma DC	39.50
*TPO-203.....	300 V. C. T. @ 20 Ma DC	
	110 V. C. T. @ 4.5 Ma DC	
	6.3 volts @ 1.05 Amps.	18.00
*TPO-204.....	800 V. C. T. @ 40 Ma DC	
	6.3 V. C. T. @ 300 Ma DC	
	6.3 V. C. T. @ 5 Amps.	
	5 V. C. T. @ 2 Amps.	18.50
TPO-205.....	330-0-330 V. @ Ma DC	
	175-0-175 V. @ 30 Ma DC	
	1000 volts @ Ma DC	
	2.5 volts @ 1.75 Amps.	12.50
	6.3 volts @ 0.6 Amps.	12.50

(*Potted)

FILTER CHOKES

Stock No.	Inductance	Current	DC Resis.	Insul.	Net Each
FC-101	2.5 Hy.	500 Ma DC	28 ohms	3000 V.	\$3.95
FC-102	3.5	450	33	2500	3.95
FC-103	10	120	200	1500	3.50
FC-104	4	300	50	2500	3.95
FC-105	4	330	50	2500	3.95
FC-106	5	2 amps.	22	8000	85.00
FC-107	7	200 Ma DC	90	1750	4.50
FC-108	8	350	400	1600	1.00
FC-109	10	150	170	1500	3.95
FC-110	10	250	50	1500	4.95
FC-111	10	330	50	2000	4.95
FC-112	10	400	Low	2500	7.95
FC-113	10	500	50	3000	9.95
FC-114	10	600	Low	3500	11.95
FC-115	10	750	50	6000	39.95
FC-116	14	110	270	2000	3.50
FC-117	15	40	200	1000	2.95
FC-118	19	150	400	2000	3.50
FC-119	20	50	350	1500	4.50
FC-120	20	140	350	2500	5.50
FC-121	25	75	390	2000	4.95
FC-122	30	30	800	1500	2.95
FC-123	30	40	700	2000	3.50

SWINGING CHOKES

SC-101	1/4/1.0 Hy., @ 3.5A/1.5A/2A. DC	
	1.5 Ohms DC Res., 7000 VRMS Insulation	25.50
SC-102	7.5/28 Henry, @ 400/70 Ma DC	
	40 Ohms DC Res., 4500 VRMS Insulation	22.50
SC-103	8/38 Henrys, @ 225/45 Ma DC	
	140 Ohms DC Res., 4000 VRMS Insulation	17.50

MODULATION TRANSFORMERS

Number	Mfg'r.	Audio Watts	Pri. Imp.	Sec. Imp.	Net
MT-101	Thord.	1000	15,000 Ohms	7,500 Ohms	\$49.50
MT-102	Thermador	600	6,600	2300 or 4600	39.50
T-499	Kenyon	150	21,000	10-15,000	11.50
T-498	Kenyon	75	17,000	6600 & 250	8.50
T-597	Kenyon	25	6,000	17,000	5.50
T-21-M52	Thord.	10	10,000	3000, 3750 & 4500	2.50
45982	RCA	50 single	1625 50 W. RF		6.95
		2000	15,000 CT	5030 Ohms	69.95

EXTRA SPECIAL!!

	RCA POWER TRANSFORMERS. BRAND NEW! IN ORIGINAL JOBBER BOXES (All 117 v., 60 cy., Pri.)	
RCA #75207.....	117 volts @ 230 Ma DC	
	6.3 volts @ 8.5 Amps.	
	6.3 volts @ 1.2 Amps.	
RCA #76429.....	117 volts @ 280 Ma DC	
	6.3 volts @ 9.5 Amps.	
	6.3 volts @ 1.2 Amps.	
	6.3 volts @ 0.6 Amps.	
RCA #78893.....	174 volts @ 600 Ma DC	
	6.3 volts @ 20 Amps.	
	6.3 volts @ 1.2 Amps.	4.95

WESTINGHOUSE SUPER H.V. POWER SUPPLY

A complete power supply delivering 90,000 volts DC @ 4 Ma. with separately regulated 25K V output. Operates from 115 volts AC, 60 cycles, single phase source. Brand new, complete (less tubes). FOB our warehouse \$850.00

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OB2	.55	3FP7A	3.50	RK59	1.75	CK503AX	1.00	5517	1.25
OC3	.50	3GP1	2.00	RK60	1.25	CK505AX	1.25	5518	275.00
OD3	.45	3HP14	1.75	QK61	20.00	CK506AX	1.00	5528/C6L	5.00
1B26	1.25	3J21	50.00	RK72	.25	CK507AX	1.25	5637	5.00
1B32	.25	3JP7	3.45	CV88	2.00	CK522AX	1.25	5650	50.00
1B35	3.50	3KP1	7.50	101D W.E.	2.50	WL532A	.25	5651	1.25
1B38	25.00	4-250A	175.00	101F W.E.	2.50	705A W.E.	.65	5676	.75
1L24	18.00	4-125A	33.00	VU1115	.75	706AY	15.00	5693	4.50
1L31	22.00	4-125A	22.75	11dB	.50	707B	2.50	5703	1.00
1N21	.25	4B22/EL5B	3.75	RX-120	20.00	713A	.25	5719	1.50
1N22	.50	4J25	25.00	F-123A	6.75	715A	2.00	5726	.75
1N23	.50	4J26	25.00	F127A	15.00	717A	.35	5744	1.00
1N23B	1.00	4J27	25.00	F-128A	7.50	718CY	25.00	5803	3.75
1N38A	.50	4J29	50.00	GL-152	10.00	720BY	35.00	5814	1.00
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1N70	1.00	4J31	100.00	203A	2.50	722A	.75	5727X	5.00
1P23	1.75	4J33	75.00	204A	25.00	723AB	8.50	5838	5.00
1P41	2.50	4J34	75.00	AV209	5.00	724B	.50	5933	1.50
2C22	.35	4J35	35.00	212E	25.00	725A	5.00	6035	10.00
2C26	.25	4X150A	20.00	215A W.E.	2.00	730A	5.00	6038	5.00
2C26A	.50	SAP1	2.75	217C	1.75	801A	.25	6073	1.75
2C27	5.00	5B21	1.25	220B	90.00	803	2.00	6098CT	2.00
2C33	.50	5C22	17.50	221A	100.00	805	4.50	6099	1.00
2C34	.25	5D21	5.00	222A W.E.	100.00	806	7.50	6130	4.75
2C40	6.50	5D23	10.00	249B	3.00	807	1.25	8008	3.00
2C43	10.00	5D24	15.00	253A W.E.	2.00	810	10.00	8012	1.00
2C46	5.00	5JP2	6.00	254 W.E.	2.50	811	2.75	8013A	3.50
2C53	10.00	5MP1	2.50	259B	5.00	813	9.50	9002	.50
2E22	2.75	5RWGY	2.50	262B	5.00	829B	8.45	D178461 W.E.	Q
2E24	2.25	5SP7	45.00	267B	5.50	832A	7.75	Receiving Tubes	
2E25	2.50	5SP11	45.00	274A W.E.	2.50	836	1.25	1A3	.35
2E36	1.35	5Y3WGT	1.50	285A W.E.	5.00	841	.29	1LD5	.45
2J21	4.00	6AC7W	1.00	310A W.E.	3.75	843	.35	2X2	.15
2J22	4.00	6AJ5	1.45	323A	7.50	845	4.00	6AK5	.77
2J29	50.00	6AK5W	1.25	348A W.E.	4.75	851	6.50	6BC7	.50
2J31	10.00	6AZ5W	1.00	350B W.E.	2.00	861	10.00	6BJ6	.50
2J33	20.00	6BA6W	1.00	356B W.E.	3.00	872A	1.00	6C6	.45
2J34	15.00	6J4WA	1.75	359A W.E.	1.75	876	.75	6D6	.55
2J38	10.00	6SNZWT	1.25	368A W.E.	2.00	884	1.00	6F8G	.20
2J49	25.00	7ACP19	1.00	374A W.E.	1.75	891	75.00	6G6G	.50
2K26	35.00	Dumont	100.00	375A W.E.	10.00	893A	375.00	6J5	.45
2K28	25.00	7BP7	3.75	387A W.E.	5.00	955	.25	6K7	.45
2K33	100.00	7C29	65.00	QK389	15.00	991	.30	6K8G	.65
2K33B	100.00	9GP7	10.00	394A	2.50	K-1001	50.00	6SD7GT	.25
2K37	100.00	12ATTWA	2.25	402A W.E.	12.50	Dumont	50.00	6SG7	.45
2K56	50.00	12DP7	10.00	404A W.E.	15.00	K-1051	50.00	6SH7	.29
2X2	.15	12DP7A	20.00	416B W.E.	Q	Dumont	50.00	6W7G	.45
EL-3C	3.45	12SP11	45.00	417A W.E.	15.00	1616	.35	7AG	.35
3A5	.59	RX21A	9.00	429A W.E.	6.00	1619	.25	7F7	.59
3B27	3.75	28D7	1.00	421A W.E.	3.75	1625	.25	7H7	.20
3C37	20.00	FG32	3.50	422A W.E.	7.50	1629	.15	12A6	.48
3CP1	2.50	RK34	.50	446B	1.50	1631	1.00	12SR7	.40
3CP1S1	2.00	LADCT	2.00	464A	2.00	1632	.20	34	.15
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3D21A	3.25	HK54	4.00	H500	35.00				

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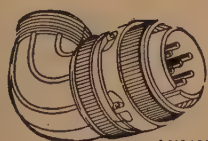
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3106A



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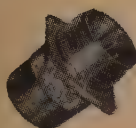
3106A

AN3063
90° Conduit CouplingAN3058
Conduit Coupling

AN-3106



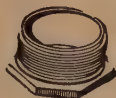
AN3107B



3100A



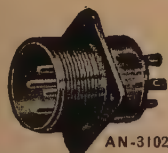
3108A

AN3064
Box ConnectorAN3062 90°
Conduit CouplingAN3066 Conduit
Coupling Locknut

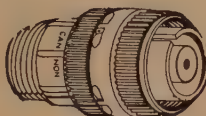
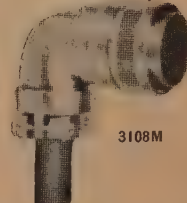
AN-3108

AN3057A
Cable Clamp

3106E



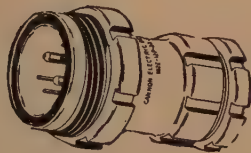
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AN3106-18(*)S
High Voltage ConnectorsAN3056
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3108M



AN-3100



W-22



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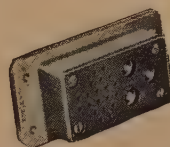
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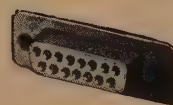
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9760-P



9760



3100M



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83-58

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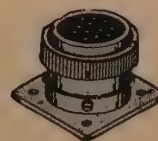
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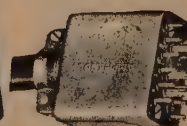
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AN/GRC—13 Field Set. Complete (2—12 m.cs.), New.
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T-350XM

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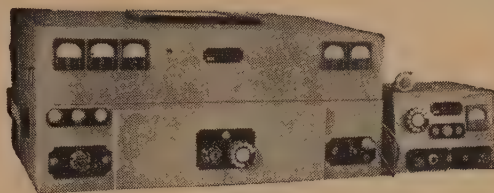
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1B83	7.50	5CP7A	8.00	FG-235A	55.00	825	.75	5750	2.25
1P21	29.50	5CP12	10.00	WE-242C	10.00	828	8.00	5751	2.00
1P22	5.00	5FP1A	5.00	QK-243	40.00	829B	8.50	5755	6.50
1P25	25.00	5HP1A	7.50	WE-244A	5.00	832A	4.85	5763	1.00
1P28	7.50	5J1P	7.50	WE-245A	6.00	835	2.50	5771	250.00
1Y2	5.00	5J2PA	5.00	WE-249B	3.00	836	1.20	5783WB	5.00
2AC15	4.50	5J4	3.50	WE-249C	2.50	837	1.25	5784	4.50
2AP1	2.00	5JPSA	7.50	250R	4.00	845	2.75	5787WA	6.00
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2C46	5.00	5XP11	50.00	WE-272A	6.00	920	2.00	5836	93.00
2C50	5.00	EL-C6J	10.00	WE-274B	.75	922	1.75	5840	4.00
2C51	3.25	EL-C6L	5.00	WE-275A	3.50	923	1.25	5842	12.00
2C52	2.75	6AC7W	.75	WE-276A	10.00	927	1.00	5847	12.00
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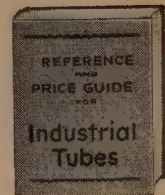
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Fig. 1

Fig. 2

Fig. 3

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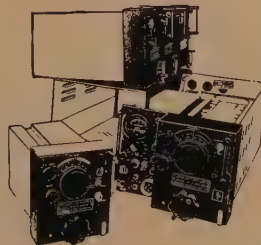
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CRYSTAL DIODES, DUO-DIODES & VARISTORS



SYLVANIA CRYSTAL DIODES

*ABSOLUTE MAXIMUM RATINGS

CHARACTERISTICS AT 25° C:

Type	Application or Description	Continuous Reverse Working Voltage (volts)	Average Anode Current (ma)	Forward Current at +1 Volt (ma min.)	Reverse Current (ua max.)
1N34A	60 volt	60	50	5	30 at -10v, 500 at -50
1N35	Matched Pair	50	22.5	7	10 at -10v
1N38A	100 volt	100	50	4	6 at -3v, 500 at -100v
1N38B	100 volt	100	50	4 (25 max.)	6 at -3v, 500 at -100v
1N39A	200 volt	200	50	4	100 at -100v, 600 at -200v
1N40	Plug-in Varistor	25	22.5	12.7 at 1.5v	40 at -10v
1N54A	High Back Resistance	50	50	5	7 at -10v, 100 at -50v
1N55A	150 volt	150	50	4	500 at -150v
1N56A	High Conduction	40	60	15	300 at -30v
1N58A	100 volt	100	50	4	600 at -100v
1N60	Video Detector	25	50	—	—
1N63	High Back Resistance	100	50	4	50 at -50v
1N65	70 volt	70	50	2.5	200 at -50v
1N67A	Miniature—High Back	80	30	4	5 at -5v, 50 at -50v
1N69	60 volt	60	40	5	5 at -10v, 850 at -50v
1N69A	60 volt	60	40	5 (25 max.)	30 at -10v, 500 at -50v
1N70	100 volt	100	30	3	25 at -10v, 300 at -50v
1N70A	100 volt	100	30	3 (25 max.)	25 at -10v, 300 at -50v
1N71	Low Impedance Varistor	40	60	15	300 at -30v
1N77A	Photodiode	—	—	—	15 at -10v, 100 at -50v (Dark)
1N81	Low Voltage	40	30	3	10 at -10v
1N81A	Low Voltage	40	30	3 (25 max.)	10 at -10v
1N82	UHF Mixer	—	—	—	—
1N82A	UHF Mixer	—	—	—	—
1N90	Miniature—General Purpose	60	30	5	750 at -50v
1N98	Miniature—High Back	80	30	20	8 at -5v, 100 at -50v
1N100	Miniature—High Back	80	30	20	5 at -5v, 50 at -50v
1N112	60 volt Computer	60	25	5	—
1N115	60 volt Computer	60	25	2.5	—
1N118	Miniature—High Conduction	60	90	20	100 at -50v
1N119	60 volt—Computer	60	25	5	—
1N120	60 volt—Computer	60	25	5	—
1N126	Miniature—60 volt	60	30	5	50 at -10v, 850 at -50v
1N127	Miniature—100 volt	100	30	3	25 at -10v, 300 at -50v
1N128	Miniature—High Back	40	30	3	10 at -10v
1N191	Miniature—Computer	90	30	5	—
1N193	High Temperature	40	30	1.0 at +2v	20 at -10v, 40 at -40v
1N194	High Temperature	40	30	1.5 at +2v	10 at -40v
1N194A	High Temperature	40	30	1.5	10 at -40v
1N195	High Temperature	40	30	2.0 at +2v	10 at -40v
1N196	High Temperature	50	30	1.0 at +2v	10 at -40v
1N198	Miniature—75°C	80	30	4	10 at -10v, 50 at -50v
1N417	Computer	60	60	—	—
1N418	Computer	60	16	7	—
1N419	Computer	80	60	125	—
1N447	VLI (Very Low Impedance)	30	60	25	20 at -10v, 60 at -30v
1N448	VLI	100	60	25	30 at -30v, 100 at -100v
1N449	VLI	30	60	50	10 at -10v, 30 at -30v
1N450	VLI	100	60	50	30 at -30v, 100 at -100v
1N451	VLI	150	60	50	150 at -150v
1N452	VLI	30	80	100	30 at -30v
1N453	VLI	100	80	100	30 at -30v, 100 at -100v
1N454	VLI	50	100	200	50 at -50v
1N455	VLI	30	100	300	30 at -30v
1N631	Miniature—Computer	60	60	—	—
1N632	Miniature—Computer	60	16	7	—
1N633	Miniature—Computer	80	60	125	—
1N634	Miniature—VLI	60	60	50	35 at -30v, 115 at -100v
1N635	Miniature—VLI	60	60	50	175 at -150v
1N1093	Computer	15	50	—	25 at -5v and 75 at -15v at 55°C

*Ratings are limiting values assigned by the manufacturer to operating or storage conditions (electrical, mechanical, or environmental) under the control of the user. If values are exceeded, permanent impairment of the device and/or performance may result.



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MICROWAVE CRYSTAL DIODES

Sylvania manufactures microwave crystals for radar, counter-measure and test applications.
All frequencies from 1000 to 35,000 mc are covered within the series.

TYPE	PURPOSE	FREQUENCY
1N21B.....	Mixer.....	3000 mc
1N21C.....	Mixer.....	3000 mc
1N21D.....	Mixer.....	3000 mc
1N21E.....	Mixer.....	3000 mc
1N23B.....	Mixer.....	9375 mc
1N23C.....	Mixer.....	9375 mc
1N23D.....	Mixer.....	9375 mc
1N23E.....	Mixer.....	9375 mc
1N25.....	Mixer.....	1000 mc
1N25A.....	Mixer.....	1000 mc
1N26.....	Mixer.....	24000 mc
1N53.....	Mixer.....	25000 mc
D938.....	Mixer.....	35000 mc
1N78.....	Mixer.....	16000 mc

TYPE	PURPOSE	FREQUENCY
1N78A.....	Mixer.....	16000 mc
1N79.....	Instrument Rectifier.....	3000
1N286.....	Mixer.....	10,000-23,000 mc
1N1132.....	Tripolar Mixer.....	1,000-12,000 mc
1N31.....	Video Detector.....	9375
1N32.....	Video Detector.....	3000
1N76.....	Video Detector.....	10000
1N358.....	Tripolar Video Det.....	1000-12000
1N369.....	Tripolar Video Det.....	3000-12000
1N369A.....	Tripolar Video Det.....	1000-12000
1N446.....	Video Detector.....	26,500-40,000

NOTE: Reverse polarity and matched pairs are available for all mixer crystal types except 1N286 and 1N1132.

AUDIO TRANSISTORS

Audio Types	Class	Total Dissipation P _T MW	Collector Base Voltage V _{cb} Volts	Collector Emitter Voltage V _{ce} Volts	Typical Alpha Cut-off Frequency F _a	Collector Current I _c ma	Application
2N34.....	PNP.....	50*	-40.....	25.....	.6.....	50.....	high gain
2N35.....	NPN.....	50*	40.....	25.....	.8.....	50.....	high gain
2N213.....	NPN.....	50*	—.....	25.....	.8.....	100.....	very high gain
2N228.....	NPN.....	50*	—.....	25.....	.8.....	50.....	high gain
2N214.....	NPN.....	125*	—.....	25.....	.8.....	50.....	high gain
2N229.....	NPN.....	50*	10.....	12.....	1.9.....	40.....	high gain
2N306.....	NPN.....	50*	20.....	12.....	.75.....	40.....	high gain

*Derate 2.5 mw per °C rise above 25°C ambient; for 50 mw units derate 1 mw per °C

RF/IF TRANSISTORS

RF/IF Types	Class	Total Dissipation P _T MW	Collector Emitter Voltage V _{ce} Volts	Typical Alpha Cut-off Frequency F _a	Collector Current I _c MA	Gain	Application
2N94.....	NPN.....	50*	20.....	3.5.....	.50.....	.32 ⁽²⁾	IF
2N94A.....	NPN.....	50*	20.....	7.....	.50.....	.49 ⁽¹⁾	RF
2N193.....	NPN.....	50*	15.....	3.5.....	.50.....	.55 ⁽²⁾	Oscillator
2N194.....	NPN.....	50*	15.....	3.5.....	.50.....	.75 ⁽²⁾	Converter
2N211.....	NPN.....	50*	10.....	3.5.....	.50.....	.55 ⁽²⁾	Oscillator
2N212.....	NPN.....	50*	10.....	6.....	.50.....	.10 ⁽²⁾	Converter
2N216.....	NPN.....	50*	15.....	3.5.....	.50.....	.75 ⁽²⁾	IF
2N233.....	NPN.....	50*	10.....	3.....	.50.....	.45 ⁽²⁾	General Purpose

*Derate 2.5 MW per °C rise above 25°C ambient; for 50 MW units derate 1 mw per °C.

NOTES—1. Current gain at 270 CPS 2. Current gain at 455 Kc

POWER TRANSISTORS

Power Type	Class	Total Dissipation P _T Watts	Collector Base Voltage V _{cb} Volts	Collector Emitter Voltage V _{ce} Volts	Typical Beta Cut-off Frequency F _B	Collector Current I _c Amps	Gain	Application
2N68.....	PNP.....	2**	-30.....	-15.....	.5.....	-1.5.....	40 ⁽¹⁾	Audio Amplifiers, Voltage regulated power supplies, DC Converter, Magnetic Core Driver, Servo Amplifier, Vertical Sweep Output, Pulse Power Output, High Current Switch, RF Modulator
2N95.....	NPN.....	2**	30.....	15.....	.5.....	1.5.....	40 ⁽¹⁾	
2N101.....	PNP.....	1**	-30.....	-15.....	.5.....	-1.5.....	40 ⁽¹⁾	
2N102.....	NPN.....	1**	30.....	15.....	.5.....	1.5.....	40 ⁽¹⁾	
2N141.....	PNP.....	1.5**	-60.....	-30.....	.5.....	-.8.....	40 ⁽¹⁾	
2N142.....	NPN.....	1.5**	60.....	30.....	.5.....	.8.....	40 ⁽¹⁾	
2N143.....	PNP.....	1**	-60.....	-30.....	.5.....	-.8.....	40 ⁽¹⁾	
2N144.....	NPN.....	1**	60.....	30.....	.5.....	.8.....	40 ⁽¹⁾	
2N242.....	PNP.....	***	-45.....	-45.....	.75.....	2.....	33db.....	
2N307.....	PNP.....		35.....	-35.....	.5.....	1.0.....	30 ⁽²⁾	

**Free air rating shown; with dissipator rating is 4 watts

***Thermal rise from mounting hole on Collector to junction 3°C/ watt max.

(1) Base to Collector current gain at 50 ma I_c
(2) Base to Collector current gain at 200 ma I_c

COMPUTER TRANSISTORS

Computer Type	Class	Total Dissipation P _T MW	Collector Base Voltage V _{cb} Volts	Collector Emitter Voltage V _{ce} Volts	Typical Alpha Cut-off Frequency F _a	Collector Current I _c MA	Max. Junction Temp. °C	Application
2N377.....	NPN.....	.150*	25.....	20.....	.6.....	200.....	85.....	high gain fast switching
2N385.....	NPN.....	.150*	25.....	25.....	.6.....	200.....	85.....	
2N388.....	NPN.....	.150*	25.....	20.....	.8.....	200.....	85.....	

*Derate 2.5 mw per °C above 25°C ambient

Note: On Computer types, base tied to can



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TR and ATR TUBES
Gas switching tubes
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Type	Description	Frequency
1858	Broadband TR	2659-2969
1858A	Broadband TR	2659-2969
5865	Broadband TR	5395-5905
6624	Broadband TR	5370-5430
1863A	Broadband TR	8490-9578
5863	Broadband TR	8490-9578
6164	Broadband TR	8490-9578
6232	Broadband TR	8490-9578
1824A	Tunable TR	8490-9600
6795	Bantam TR	8490-9578
6334	Dual TR	8490-9578
5790	Tunable TR	33814-35906
6545	Tunable TR	33814-35906
1844	ATR	2750
1856	ATR	2850
6081	ATR	5640
6591	ATR	5400
1835A	ATR	9300
1837A	ATR	8750
6163	ATR	9050
6214	Quick-firing ATR	9375
5791	ATR	34860
6546	ATR	34860



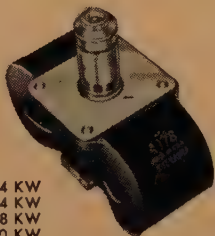
TRAVELING WAVE TUBES

Type	Description	Frequency (KMC)	Power Output	Max. Noise figure (db)	Min. Gain (db)
6493	Wide Band Low Power TWT Amplifier	2-4	15 mw	25	35
6494	Dispersive Amplifier	2-4			15-27
6495	Broadband Low Noise Amplifier	2-4	7 mw	11	30
6496	Backward Wave Oscillator	2-4	50 mw (2KMC) 300 mw (4KMC)		
6559	TWT C. W. or Pulsed Amplifier	2-4	2.0 w	30	25
6698	Hi power pulsed Amplifier	2-4	1 kw peak		27
6699	Backward Wave Oscillator	1-2	70 mw at 1 KMC—1000 mw at 2 KMC		
6752	Medium Power Amplifier	1-2	2 watts		33
6753	Low Level Amplifier	1-2	15 mw	30	37
BW623	Backward Wave Oscillator	4-8	35 mw at 4 KMC—150 mw at 8 KMC		
TW612	Low Level Amplifier	4-8	5 mw	30	37
TW613	Low Level Amplifier	8-12.5	3 mw		37

MAGNETRONS

Sylvania magnetrons are designed for military and commercial radar applications.

2J42	9375 Fixed	14 KW
2J42H	9375 Fixed	14 KW
6027	9375 Fixed	18 KW
6874	8800-9400 Tunable	180 KW
5789	34800 Fixed	32 KW
6799	34800 Fixed	100 KW



COUNTER TUBES

Sylvania decade counter tubes provide visual and electrical read-out for a broad field of counting applications.

Type	Rated Speed	Outputs
6476	4 KC	10
6802	4 KC	4
6879	5 KC	3
6909	100 KC	4
6910	100 KC	10



TRIGGER TUBES

OA5—Cold cathode trigger tube capable of dissipating one watt of energy. Designed in T5½ bulb size.
6403—Cold cathode trigger tube capable of dissipating one watt of energy. Designed in T-3 bulb size.

FERRITE ISOLATORS

Sylvania ferrite isolators are designed for use in radar microwave link or test equipment. The ferrite isolator will protect the power source from reflected energy, thereby contributing to more stable operation and longer life performance.

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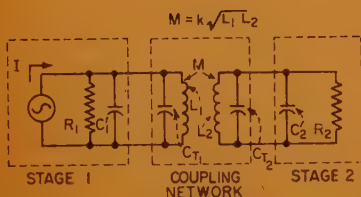
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The Editors

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SUMMARY — Rapid correlation of coupling-circuit performance can be achieved with parameters of a wide variety of double-tuned coupling transformers. Charts are particularly useful where power transfer is important, as in transistor i-f amplifiers. Several interesting problems are worked out to illustrate design procedure



By MELBOURNE J. HELLSTROM

FIG. 1—Typical double-tuned transformer coupling network

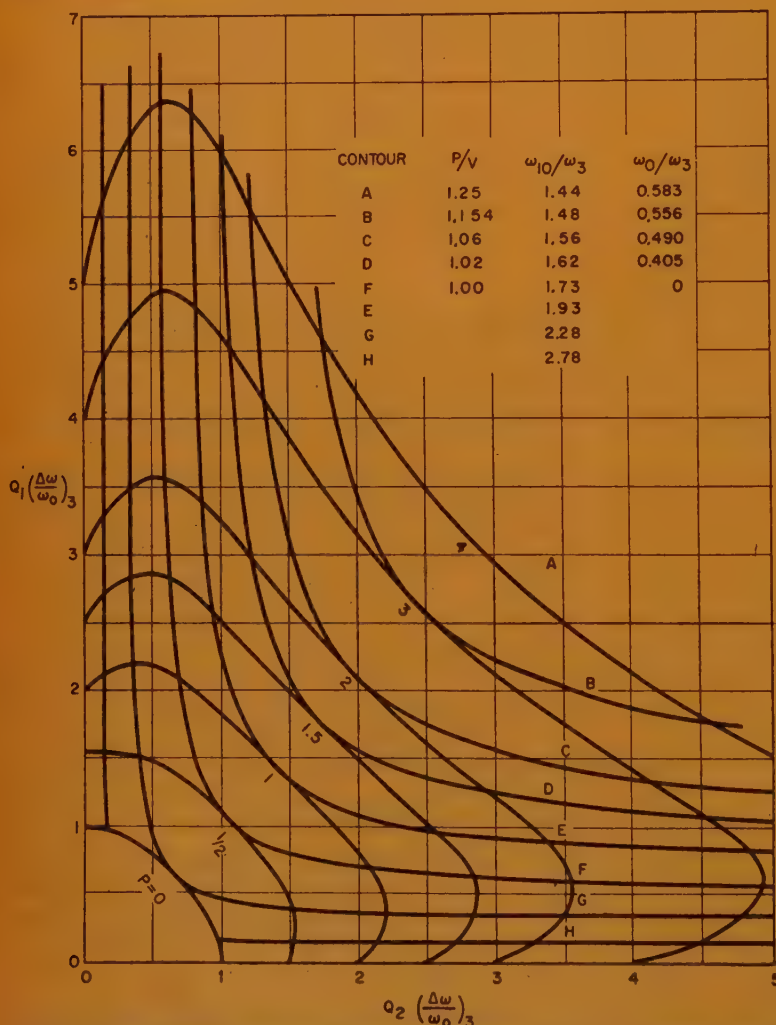


FIG. 2—Design curves for double-tuned transformers; $(\Delta\omega/\omega_0)_3$ is relative bandwidth at half-power points of pass band

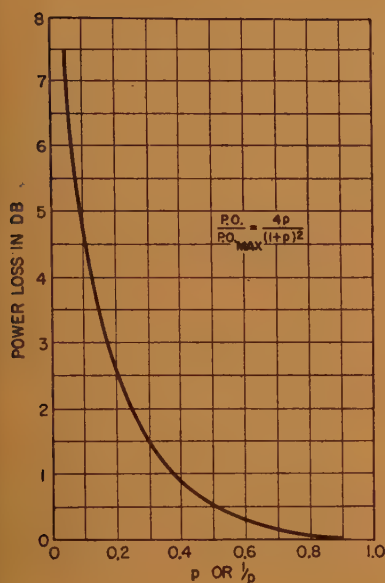
IN DESIGN of transistor video i-f amplifiers, the problem of coupling between stages may be approached from the point of view of power transfer from the output terminals of one stage to the input terminals of another. Usually this network is in the form of a single or double-tuned transformer. The design charts described in this article are applicable to a wide variety of coupling circuits.¹

A typical coupling network is illustrated in Fig. 1. The transformer couples power from stage 1 to stage 2. The output impedance of stage 1 is represented by the parallel combination of R_1 and C_1' and the input impedance of stage 2 by R_2 and C_2' . The tuning capacitances of the primary and secondary are C_{T1} and C_{T2} . For convenience $C_1 = C_1' + C_{T1}$, the total primary capacitance, and $C_2 = C_2' + C_{T2}$, the total secondary capacitance.

The power transfer of this and many other coupling networks² is given as a function of frequency and circuit constants by:

$$\frac{P}{P_0} = \frac{(1+p)^2}{\{[1+p-(\Delta\omega/\omega_0)Q_1(\Delta\omega/\omega_0)Q_2]^2 + [(\Delta\omega/\omega_0)Q_1 + (\Delta\omega/\omega_0)Q_2]^2\}} \quad (1)$$

TUNED TRANSFORMERS



where P/P_o = relative power transfer, the power transfer at frequency ω divided by the power transfer at the center of the passband ω_o ; $(\Delta\omega/\omega_o)$ = relative bandwidth, with $\Delta\omega$ the difference between the upper and lower frequencies at which the relative power transfers equal P/P_o ; Q_1 = primary circuit Q ; Q_2 = secondary circuit Q ; $p = K^2 Q_1 Q_2$, the source-to-load impedance match parameter; K^2 = an effective coupling coefficient.

Exact relations for primary and secondary circuit Q 's, the effective coupling coefficient and the conditions for tuning depend on the type of coupling circuit. These relations are given in a chart for four types of double-tuned transformers. It can be seen that a given transformer winding is tuned with the other short-circuited when it is parallel tuned or with the other open-circuited when it is series tuned.

To obtain a design chart from Eq. 1 relating the relative bandwidth where the power transfer is 3 db below the midband value, denoted $(\Delta\omega/\omega_o)_s$, let $P/P_o = \frac{1}{2}$. The chart is shown in Fig. 2 with curves for different values of p from 0 to 4. The trans-

former design corresponding to every pair of values of $(\Delta\omega/\omega_o)_s$, Q_1 and $(\Delta\omega/\omega_o)_s Q_2$ prescribed by a given p contour will have the same midband power transfer. The curve for $p = 1$, the critical coupling contour, is the same as that in the literature.³

For any given transformer, the center-frequency power transfer is related to its maximum value P_o by

$$P_o/P_o max = 4p/(1+p)^2 \quad (2)$$

Significance of p

The value p may be thought of as the ratio of source resistance to the load resistance reflected into the primary. When $p = 1$, the source and load are matched, the power transfer is at its maximum value. The power transfer for other values of p is shown by the plot of Eq. 2 in Fig. 3.

Another interpretation may be given p . Critical coupling is that coupling which affords maximum power transfer and corresponds to the matched condition $p = 1$. Then $p = 1 = K^2 Q_1 Q_2$, or $K^2 = 1/(Q_1 Q_2)$ where K_o = critical coupling coefficient. Hence, $p = (K/K_o)^2$, the square

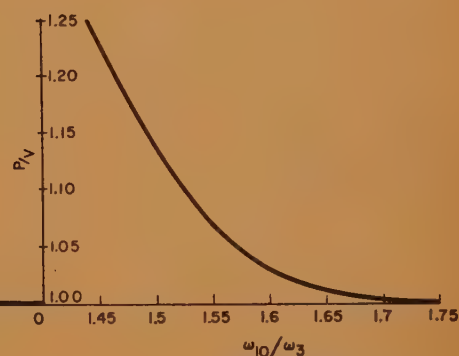


FIG. 4—Relation between shape factors for different bandwidth ratios

FIG. 3—Power loss for matched case, $p = 1$, versus p

of the ratio of the coupling coefficient to the critical value of this coefficient. The quantity $n = K/K_o$ has been used in the literature⁴ for plotting universal curves for coupling circuits. Therefore $p = n^2$.

Shape Contours

In addition to the curves for different values of p in Fig. 2, there is another family of curves of constant pass band shape, which are concave outward from the origin. Every pair of values of $(\Delta\omega/\omega_o)_s Q_1$ and $(\Delta\omega/\omega_o)_s Q_2$ on a given shape contour will have the same pass band shape.

The pass band shape is described by: the skirt steepness, defined as the ratio of the relative bandwidth where the relative power transfer is -10 db to that where the relative transfer is -3 db (W_{10}/W_3); the peak-to-valley transfer response ratio (P/V); the relative bandwidth at the response peaks expressed in a ratio with the 3-db relative bandwidth (W_o/W_3). The last two factors have meaning only when the response is double peaked.

The one-to-one correspondence between the factors is graphi-

cally illustrated by the curves in Fig. 4.

For single-peaked responses, there are no real values of P/V and W_0/W_s . The shape contour for $P/V=1$ separates the over-coupled and undercoupled regions of the $Q_1(\Delta\omega/\omega_0)_s - Q_2(\Delta\omega/\omega_0)_s$ plane. This curve is defined by $p = \frac{1}{2} (Q_1/Q_2 + Q_2/Q_1)$, which may be reduced to the definition of transitional coupling, $K^2 = \frac{1}{2} (1/Q_1^2 + 1/Q_2^2)$. Transitional coupling is the point at which the transfer response changes between single and doubled peaked.

Figure 2 permits the design of a transformer which will have

CIRCUIT	TUNING	k^2	Q_1	Q_2
PARALLEL-PARALLEL 	$\omega_0^2 = \frac{1}{L_1 C_1 (1-k^2)}$ $= \frac{1}{L_2 C_2 (1-k^2)}$	k^2	$\omega_0 R_1 C_1$ $= \frac{R_1}{\omega_0 L_1 (1-k^2)}$	$\omega_0 R_2 C_2$ $= \frac{R_2}{\omega_0 L_2 (1-k^2)}$
SERIES-SERIES 	$\omega_0^2 = \frac{1}{L_1 C_1}$ $= \frac{1}{L_2 C_2}$	k^2	$\frac{1}{\omega_0 R_1 C_1}$ $= \frac{\omega_0 L_1}{R_1}$	$\frac{1}{\omega_0 R_2 C_2}$ $= \frac{\omega_0 L_2}{R_2}$
PARALLEL-SERIES 	$\omega_0^2 = \frac{1}{L_1 C_1}$ $= \frac{1}{L_2 C_2 (1-k^2)}$	$\frac{k^2}{1-k^2}$	$\omega_0 R_1 C_1$ $= \frac{R_1}{\omega_0 L_1}$	$\frac{1}{\omega_0 R_2 C_2}$ $= \frac{\omega_0 L_2 (1-k^2)}{R_2}$
SERIES-PARALLEL 	$\omega_0^2 = \frac{1}{L_1 C_1 (1-k^2)}$ $= \frac{1}{L_2 C_2}$	$\frac{k^2}{1-k^2}$	$\frac{1}{\omega_0 R_1 C_1}$ $= \frac{\omega_0 L_1 (1-k^2)}{R_1}$	$\omega_0 R_2 C_2$ $= \frac{R_2}{\omega_0 L_2}$

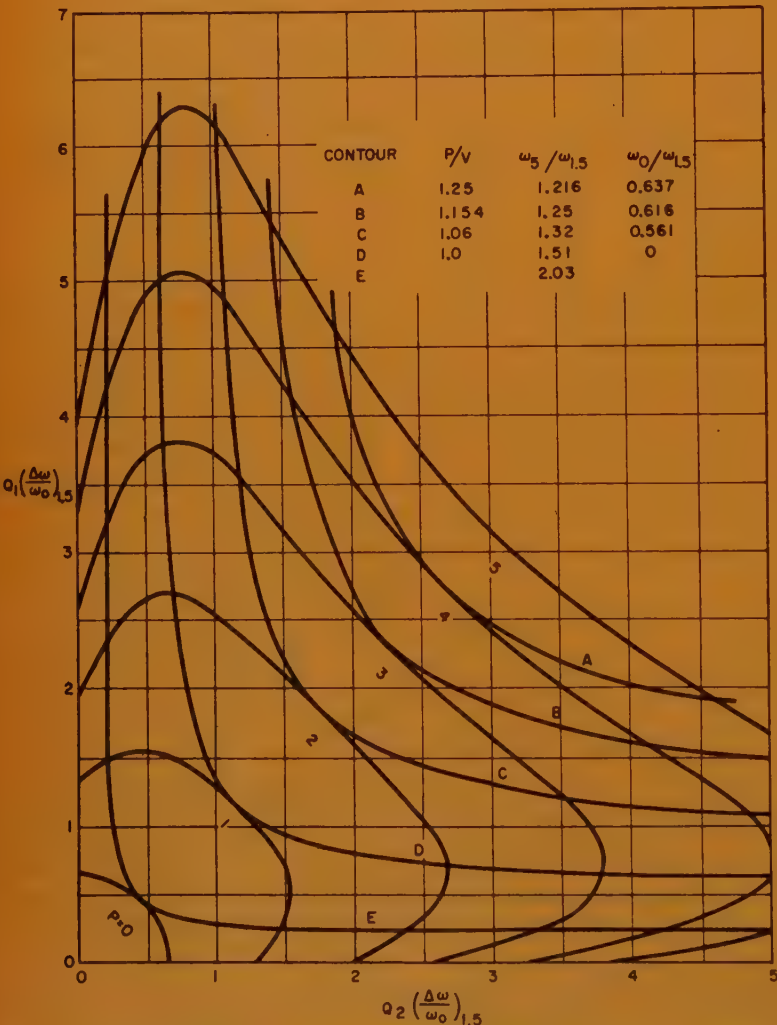


FIG. 5—Design curves for double-tuned transformers; $(\Delta\omega/\omega_0)_{1.5}$ is relative bandwidth where power gain is 1.5 db below center frequency value

the desired 3-db bandwidth, a known pass-band shape and percent of maximum power transfer. If a number of stages are cascaded, the transfer responses in db are additive.

To permit the design of transformers to be used in pairs or triples, design curves for a single transformer are given in Fig. 5 and 6 in terms of 3/2-db bandwidth, $(\Delta\omega/\omega_0)_{1.5}$, and 1-db bandwidth, $(\Delta\omega/\omega_0)_1$.

When two or three, respectively, of these transformers are cascaded, these bandwidths become the overall 3-db bandwidth. The shape factors on these curves are expressed for a single transformer and they must be interpreted for cascading. For example, $(W_s/W_{s/2})$ for one transformer is (W_{10}/W_s) for a pair; $P/V=1.1$ for one transformer means that for a triple P/V is $(1.1)^3$.

Chart Contour Interpretation

Several properties of coupled tuned circuits are apparent from the design charts.

The transitional coupling contour ($P/V=1$) and the critical coupling curve ($p=1$) divide the $Q_1(\Delta\omega/\omega_0) - Q_2(\Delta\omega/\omega_0)$ plane into three regions. Referring

to Fig. 2, 5 or 6: between $p = 1$ and the axes, the circuits are undercoupled and single peaked; between $p = 1$ and $P/V = 1$, they are overcoupled but single peaked; outside $P/V = 1$, they are overcoupled, double peaked.

Different degrees of impedance match or center frequency power transfer may be obtained with the same pass band shape. For critical or overcoupled transformers, ($p \geq 1$) maximum power transfer and best impedance match for a given pass band shape occurs when the Q 's are equal. For an undercoupled ($p < 1$) transformer, this occurs at two values of Q_1/Q_2 .

Moving along a contour of constant power transfer (constant p), various shape factors may be obtained with the same impedance match. It is always possible to obtain a response which is not double peaked if the Q 's are made sufficiently unequal. For $p \geq 1$, it is always possible to achieve transitional coupling, at equal Q 's for $p = 1$ and at two values of Q_1/Q_2 for each $p > 1$.

Changing Coupling

If Q_1 and Q_2 are fixed and coupling coefficient k is varied, the performance of the transformer can be seen on the design curves by considering radial lines Q_1/Q_2 equal to a constant as illustrated in Fig. 7.

For example, if the coupling is increased, the design point moves along the given radial line in the direction of increasing p , since $p = K^2 Q_1 Q_2$. As a result, the center-frequency power transfer may increase or decrease, depending on whether the original value of p was less or greater than unity. The 3, 1.5, or 1-db bandwidth will increase since $Q_1(\Delta\omega/\omega_0)$ increases. The shape of the pass band will tend toward double peaking and steeper skirts and the spacing between the peaks, if they exist, will increase.

For any given value of p there is a maximum value of $Q_1(\Delta\omega/\omega_0)$. For the critical coupling

contour this value, from Fig 2, is 2.2. Thus, if an impedance match is desired ($p = 1$), the maximum 3-db bandwidth which may be obtained is $(\Delta\omega/\omega_0)_s = 2.2/Q_1$. With Q_1 too large, this bandwidth may be inadequate.

From another viewpoint, when $(\Delta\omega/\omega_0)_s$ and Q_1 are both specified, $Q_1(\Delta\omega/\omega_0)_s$ is greater than 2.2 if Q_1 is too large. It is, therefore, impossible to match this source for the required band.

It is possible to load the source with a damping resistor, but a greater power transfer can be obtained by designing for the best impedance match at the given value of source Q . In Fig. 8, point A will give the maximum power transfer if no damping resistance is added. It is the point where line $Q_1(\Delta\omega/\omega_0)_s$ is tangent to the p contour which has the value of p closest to one.

If the source is dampened so the effective source $Q_1'(\Delta\omega/\omega_0)_s = 2.2$ then point B will give the maximum power transfer. However, there is now a loss in damping resistance R_d which has been added across the primary.

The ratio of the maximum values of power output without and with the damping resistance is $P_o/P_o' = 1.82Q_1(p_A + 1/p_A + 2)(\Delta\omega/\omega_0)_s$. A plot of this expression, Fig. 9, shows the db loss resulting from changing design points from A to B, versus the source $Q_1(\Delta\omega/\omega_0)_s$. The positive slope of this curve shows that any partial damping will not be as efficient as point A (no damping).

Examples

- (1) The output impedance, including strays, of a common-base

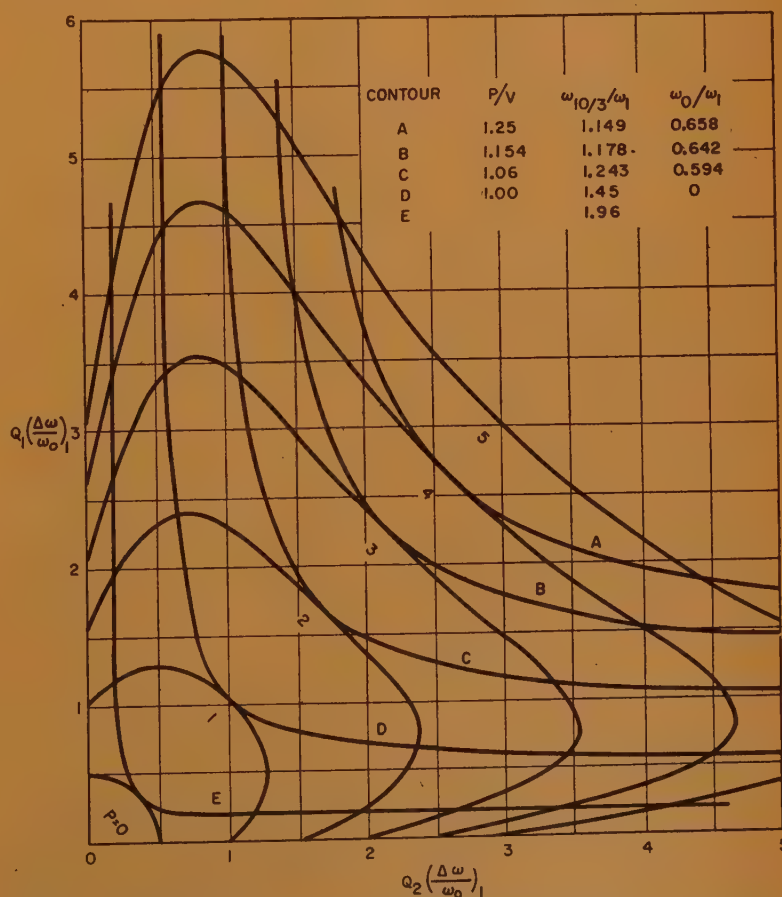


FIG. 6—Design curves for double-tuned transformers; $(\Delta\omega/\omega_0)_s$ is relative bandwidth at half-power points

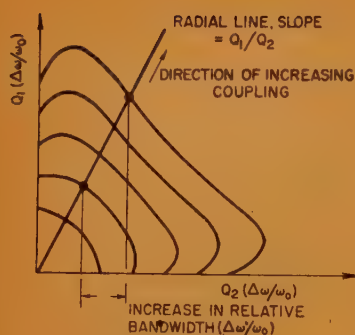


FIG. 7—Increased coupling effects

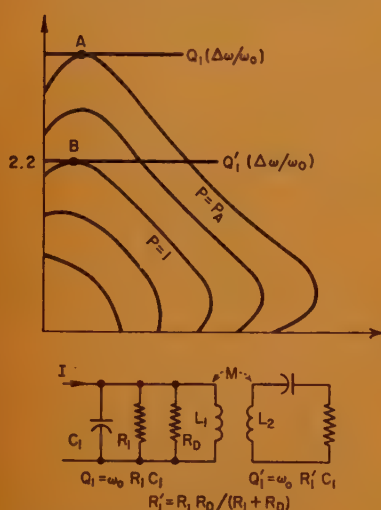


FIG. 8—Effect of addition of damping resistance

neutralized transistor amplifier stage appears as a 7,500-ohm resistance in parallel with a $10\mu\text{f}$ capacitor. The load resistance is 500 ohms. Design a parallel-series double-tuned transformer for maximum power transfer at a frequency of 21.25mc, with a relative bandwidth of 0.2. $Q_1 = \omega_0 R_1 C_1 = (133 \times 10^3) (10^{-11}) (7,500) = 10$.

Since $Q_1 \times (\text{relative bandwidth}) = 10.0 \times 0.2 = 2$, it can be seen from Fig. 2, that the matched condition, $p = 1$, is possible. From Fig 2, $Q_2 = 0.8/0.2 = 4$. The primary inductance is then $L_1 = 1/\omega_0^2 C_1 = 1/(133 \times 10^3)^2 (10^{-11}) = 5.64 \times 10^{-6}$ hy. The coefficient of coupling is found; $p = 1 = k^2 Q_1 Q_2 = [k^2 / (1 - k^2)] Q_1 Q_2$, $k = 0.156$. The secondary inductance is $L_2 = Q_2 R_2 / \omega_0 (1 - k^2) = 4(500) / (133 \times 10^3) (0.9756) = 15.4 \mu\text{hy}$. The capacitance to tune the secondary

is $C_2 = 1/\omega_0^2 L_2 = 1/(133 \times 10^3)^2 (15.4 \times 10^{-6}) = 3.65 \mu\text{f}$.

From Fig. 2, the ratio of the 10-db to 3-db bandwidths may be interpolated as 1.86. The response is single peaked.

(2) If, in the preceding problem, the output resistance were 17,000 ohms, what would be the transformer design for maximum power transfer?

The primary Q would be increased by the factor $17,000/7,500$: $Q_1 = 10 (17/7.5) = 22.7$ and $Q_1 (\Delta\omega/\omega_0)_s = 0.2 \times 22.7 = 4.54$.

Referring to Fig. 2, it can be seen that the matched case cannot be achieved with $Q_1 (\Delta\omega/\omega_0)_s = 4.54$. To obtain minimum mismatch loss the contour with its peak tangent to $Q_1 (\Delta\omega/\omega_0)_s = 4.54$, $p = 2.68$, will be used. From Fig. 3, $p = 2.68$ corresponds to a loss of about 1 db with respect to the matched case. This is the minimum loss that can be achieved with a double-tuned transformer in this stage. The value of Q_2 at this peak may be interpolated as 2.83.

The primary inductance is the same as in the first example. The coupling coefficient is: $k^2 / (1 - k^2) = p / Q_1 Q_2$, $k = 0.20$. The secondary inductance is $L_2 = Q_2 R_2 / \omega_0 (1 - k^2) = (2.83) (500) / (133 \times 10^3) (0.96) = 11.0 \mu\text{hy}$. The capacitance to tune the secondary is $C_2 = 1/\omega_0^2 L_2 = 5.09 \mu\text{f}$.

(3) What would be the effect in the first example of a 10-percent increase in the coefficient of coupling?

The increased coupling coefficient is $1.1 (0.156) = 0.172$. The primary Q is not changed and

the secondary Q is only negligibly changed by the $\frac{1}{2}$ -percent variation in $(1 - k^2)$.

Parameter p is $(0.172)^2 (10) (4) [1 - (0.172)^2] = 1.22$. From Fig. 3, the power loss with respect to the matched case is 0.04 db. Moving along a radial line $= Q_1/Q_2 = 10/4 = 2.5$ to the interpolated $p = 1.22$ curve on Fig. 2, W_{10}/W_s changes from 1.86 at $p = 1$ to 1.79 at $p = 1.22$.

From this shift along the radial line, the value of $Q_1 (\Delta\omega/\omega_0)_s$ changes from 2 to about 2.16. Since Q_1 does not change, the 3-db relative bandwidth has increased from 0.2 to $(0.2) (2.16/2.0) = 0.216$. Thus, the 10-percent increase in k results in a power loss of 0.04 db, an increase of 8 percent in the 3-db bandwidth and a decrease in W_{10}/W_s of nearly 4 percent.

(4) Three identical transistor amplifiers each having an output Q of 17.75 are to be cascaded using three double-tuned transformers. What is the minimum insertion loss for the three transformers, neglecting coil losses? The overall 3-db relative bandwidth is to be 0.2. What will be the shape factors of the overall pass band?

$Q_1 (\Delta\omega/\omega_0) = Q_2 (0.2) = 3.55$

Referring to Fig. 6 at $Q_1 (\Delta\omega/\omega_0)_1 = 3.55$, the minimum value of p is 3. Hence, from Fig. 3, the loss is 1.25 db per stage or an overall loss due to mismatch of 3.75 db. From Fig. 6, $P/V = 1.02$ for one stage, or $1.02^3 = 1.06$ for three stages. Also $W_{10}/W_1 = 1.37$ for one stage, hence $W_{10}/W_s = 1.37$ for three stages. The separation of the peaks is about $W_0/W_1 = 0.51$ for one stage or $W_0/W_s = 0.51$ for three.

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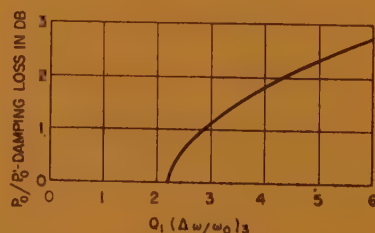


FIG. 9—Damping loss as a function of undamped source Q

SUMMARY – Chart permits finding characteristic impedance of eccentric coaxial lines in terms of conductor dimensions and amount of eccentricity. Scales may be multiplied by factors of ten to increase useful range of chart

R-7

MEASURING R-F PARAMETER

SUMMARY—Equipment and techniques for measuring small-signal h parameters of triode and tetrode junction transistors in the range from 1 to 24 mc are described. Amount of error introduced in measurement by output terminations is considered

BECAUSE OF the inherent nature of the transistor, the most readily measured network coefficients are the series-parallel or h parameters.^{1,2} Once the four h parameters are known at a given frequency and for a given set of d-c operating conditions, such quantities as power gain, voltage gain, input impedance and output impedance of the transistor in a transmission circuit may be calculated for the same frequency and d-c operating conditions.³

This article describes methods and equipment which can be used to determine the four grounded-base h parameters of junction transistors from 1 to 24 mc.

Under small-signal conditions the electrical behavior of a transistor can be described by considering it as a linear two-terminal-pair active network, with the four differential terminal voltages and currents related to four network parameters.

Short-Circuit Input Impedance

The electrical symbol for the transistor and the direction of instantaneous current flow and voltage rise, together with the two network equations, are shown in

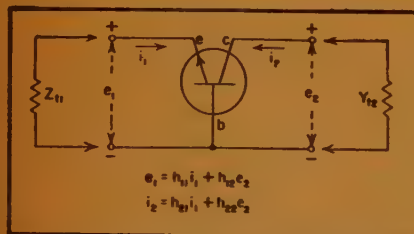


FIG. 1—Two-terminal-pair representation of transistor



Rack-mounted h -parameter measuring equipment. At the right may be seen one of r-f bridges and communications receiver. Both are mounted on a conducting ground-plane

Fig. 1. For convenience, transistors are shown as nnp units, triode or tetrode; $pnnp$ transistors can be measured if the polarity of the bias supplies is reversed.

At radio frequencies the four h parameters are of the form $h_{ij} = a \pm jb = C \angle \theta$. In Fig. 1

$$a \pm jb = h_{11} i_1 + h_{12} e_2 \quad (1)$$

$$i_2 = h_{21} i_1 + h_{22} e_2 \quad (2)$$

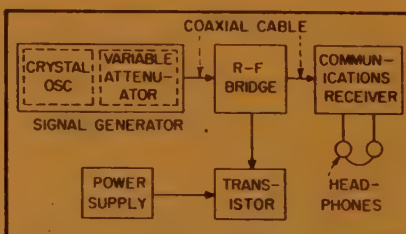


FIG. 2—Setup for measuring h_{11} parameter of transistors

where h_{11} is the short-circuit input impedance parameter and h_{12} is the open-circuit voltage-feedback parameter; h_{21} is the short-circuit current-transfer parameter and is equivalent to α , except for a 180-deg phase difference. The quantity h_{22} is the open-circuit output admittance.

A fifth parameter is the short-circuit output admittance, y_{22} . This quantity may be found in terms of the h parameters by setting $e_1 = 0$ in Eq. 1 and combining the result with Eq. 2 so

$$\frac{i_2}{e_2} = y_{22} = h_{22} - \frac{h_{12} h_{21}}{h_{11}} \quad (3)$$

As can be seen in Eq. 1, driving-point impedance Z_{in} at the input terminals will be equal to h_{11} if e_2 is zero. This condition will prevail only if terminating admittance Y_{12} at the output terminals is infinite. Since this condition can be approached but never attained, it is of interest to find the error introduced in the determination of h_{11} by a finite terminating admittance Y_{12} . The following equation is therefore derived from Eq. 1 and 2. With

$$e_2 = -i_2 / Y_{12}$$

$$Z_{in} = h_{11} \left[1 - \frac{h_{12} h_{21}}{Y_{12} (1 + h_{22} / Y_{12}) h_{11}} \right]$$

$$= h_{11} \left[\frac{1 + y_{22} / Y_{12}}{1 + h_{22} / Y_{12}} \right] \quad (4)$$

Hence if $Y_{12} \gg h_{22}$ and $Y_{12} \gg y_{22}$, then $h_{11} \cong Z_{in}$.

In the test circuit used for measuring h_{11} , Y_{12} is the terminating admittance obtained from a bypass capacitor strapped between the collector and base connections

F JUNCTION TRANSISTORS

By W. N. COFFEY

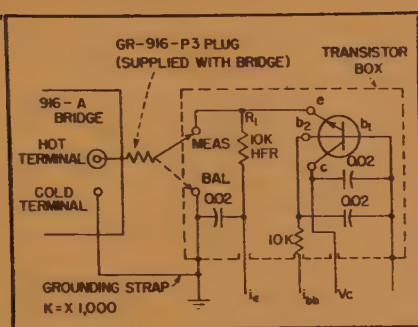


FIG. 3—Transistor-box circuit for h_{11} measurement

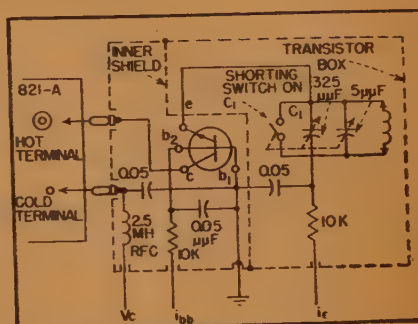


FIG. 4—Transistor-box circuit for h_{22}/y_{22} measurement

of the transistor. The magnitude of Y_{22} is maintained ≥ 0.1 mho over the frequency range and thus is many times greater than either h_{22} or y_{22} .

The short-circuit input impedance is of the form $h_{11} = r_{11} \pm jx_{11}$ in ohms and is measured with a General Radio model 916-A radio-frequency bridge as shown in Fig. 2. Additional equipment includes a crystal-controlled signal generator with 8 test frequencies from 1 to 24 mc and a communications receiver which serves as a detector. All of the equipment is placed on a sheet aluminum ground-plane. Connections to the bridge are made with double-shielded coaxial cable.

The transistor is connected to the bridge and its power supply as shown in Fig. 3. This circuit is contained in a 2 by 2 by 4 inch metal box fastened to the bridge close to the unknown terminals. Direct current for the emitter is fed in shunt with these terminals through R_1 . The box is provided with a subminiature tube socket into which the transistor plugs.

Correction Factors

The admittance of the parallel combination of R_1 , the shunt capacitance to ground of the emitter circuit wiring in the box and the shunt capacitance to ground of the GR-916-P3 connecting lead may have to be accounted for in determining the true h_{11} parameter. This will be required generally if $|h_{11}| > 200$ ohms and if the frequency is greater than 10 mc. Corrections for the inductance effects in the

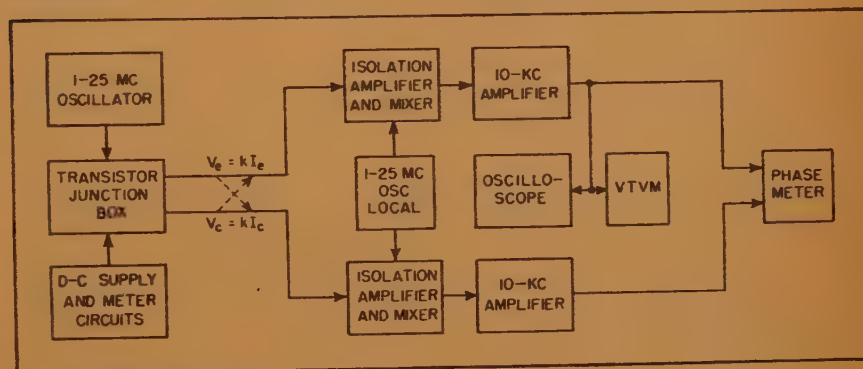


FIG. 5—Equipment necessary to measure a at high frequencies

bridge may be necessary if the frequency is greater than 14 mc.

The open-circuit output admittance, $h_{22} = g_{22} + j\omega C_{22}$ (μ mho), can be measured as a driving-point admittance at the output terminals in Fig. 1 provided $i_i = 0$, input terminals open-circuited. This parameter is measured with a GR model 821-A impedance-measuring circuit, in an arrangement similar to that shown in Fig. 2.

The transistor is connected to its d-c bias supply and to the impedance bridge by the circuit shown in Fig. 4. This circuit is contained in a small metal box and is provided with two banana jacks which plug into the bridge UNKNOWN terminals. The d-c collector current is fed through the inductance which forms part of a tuned circuit within the bridge. This inductance is connected directly across the unknown terminals.

Likewise, the d-c emitter current is fed through the inductance of a parallel-resonant circuit used to provide a high impedance in the external emitter-base circuit. The error introduced by using a finite,

but large, rather than infinite terminating impedance, Z_{11} , is given in the following equation. With $e_1 = -i_1 Z_{11}$, then

$$Y_{out-oc} = \left[1 - \frac{h_{12} h_{21}}{Z_{11} \left(1 + \frac{h_{11}}{Z_{11}} \right) h_{22}} \right] = h_{22} \left[\frac{1 + z_{11}/Z_{11}}{1 + h_{11}/Z_{11}} \right] \quad (5)$$

where z_{11} is the open-circuit input impedance, $(h_{11} - h_{12}h_{21}/h_{22})$.

For Y_{out-oc} to be a measure of h_{22} with small error, it is necessary that $Z_{11} \gg h_{11}$ and $Z_{11} \gg z_{11}$. In the test circuit used in this measurement, the minimum Z_{11} afforded by the parallel-resonant circuit over the frequency range is 25,000 ohms, which is adequate.

Procedure

After the bridge is initially balanced with the junction box plugged in, the tuned circuit is adjusted to resonance by placing it across the UNKNOWN terminals of the bridge and measuring its admittance. This is easily done by strapping through the transistor connection, emitter

Measuring R-F Parameters of Junction Transistors (Continued)

to collector. The strap is then removed and the transistor is inserted in the circuit for measurement. Correction for frequency effects within the bridge may be necessary above 14 mc.

As an alternative to measuring the h_{12} parameter directly, the short-circuit output admittance, $y_{22} = g'_{22} + j\omega C'_{22}$, (μmho), is measured. In this case the termination required at the emitter-base terminals is a very low impedance, ideally a short-circuit.

Parameter y_{22} is measured after the h_{22} measurement, before the bridge and the terminating tuned circuit are readjusted to a different frequency. To measure y_{22} it is only necessary to turn tuning capacitor C_1 in Fig. 4 to full mesh, so the bent tip of one of the rotor plates makes contact with the adjacent stator plate. This short-circuits the tuned circuit and drops the terminating impedance to a few ohms or less.

Open-Circuit Voltage-Feedback Parameter

The open-circuit voltage-feedback parameter, $h_{12} = |h_{12}| \angle \Psi$, is equal to the ratio e_1/e_2 if $i_1 = 0$, as shown in Eq. 1. To make $i_1 = 0$, an

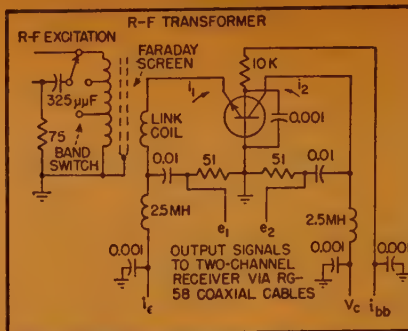


FIG. 6—Transistor junction box used for h_{oi} measurement

infinite terminating impedance Z_n is required. A voltage generator e_i could be placed across the output terminals in Fig. 1 and the feedback voltage e_i in the microvolt range, measured with a high-impedance voltmeter across the terminals. This voltmeter impedance, plus an additional parallel impedance to allow d-c emitter current to flow would result in a finite Z_n . The error introduced by having a finite rather than infinite terminating impedance is determined from the relationship

$$\frac{e_1}{e_2} = \frac{h_{12}}{(1 + h_{11}/Z_{01})} \quad (6)$$

Probe-type vacuum-tube volt-

meters which can measure in the microvolt region are available, but are accurate for frequencies up to only several mc. For measuring h_{12} with such a device one could provide a parallel-resonant circuit at the emitter-base terminals and tune out the capacitive reactance of the vtvm probe and associated wiring. At the same time, d-c emitter current could flow through the inductance. Moderately high values of operating Q in this circuit will make $Z_{11} \gg h_{11}$ so that a measure of e_1/e_2 will be a good measure of $|h_{12}|$.

Because of the frequency limitations involved with commercially available microvoltmeters as well as the difficulty in measuring the phase angle of h_{12} , it was felt desirable to measure h_{12} indirectly using the following relationship which involves the directly measured parameters already discussed

$$h_{12} = \frac{h_{11} (y_{out-oe} - y_{out-se})}{h_{21} \left[\frac{1}{1 + \left(\frac{Z_{11-se}}{h_{11}} \right)} - \frac{1}{1 + \frac{Z_{11-oe}}{h_{11}}} \right]} \quad (7)$$

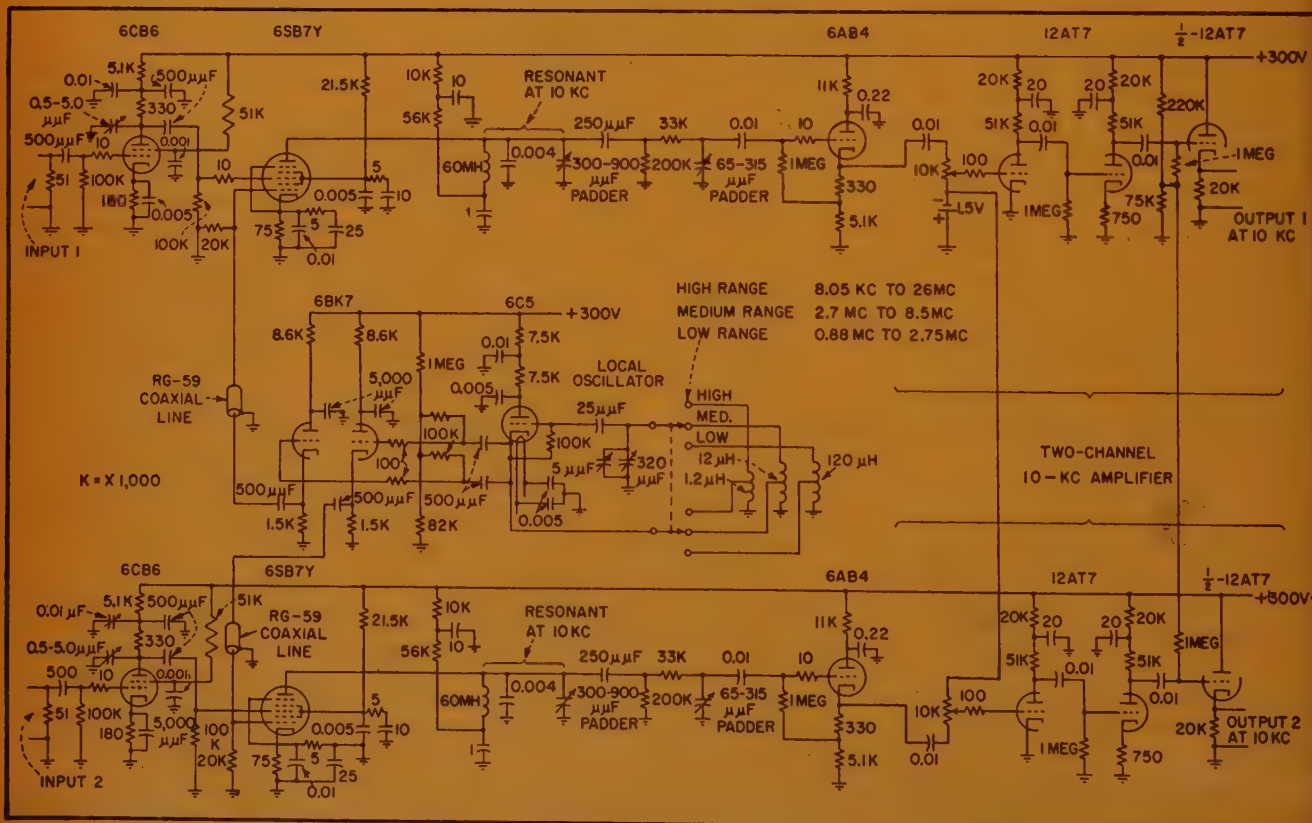
$$\text{If } Z_{11-\infty} \ll h_{11} \text{ and } Z_{11-\infty} \gg h_{11}, \text{ then} \\ h_{12} \approx (h_{11}/h_{21})(y_{\text{out-}\infty} - y_{\text{out-}\infty}) \quad (8)$$


FIG. 7—Two-channel superheterodyne receiver covers frequency ranges of 8.05 to 26, 2.7 to 8.5 and 0.88 to 2.75 mc

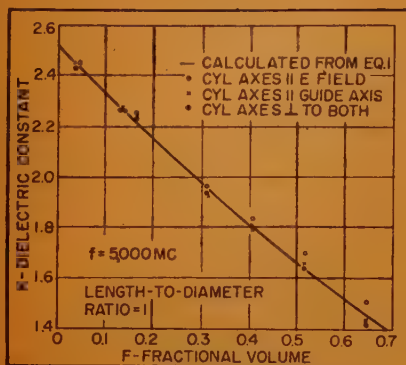


FIG. 1—Dielectric constant for cylindrical-void media

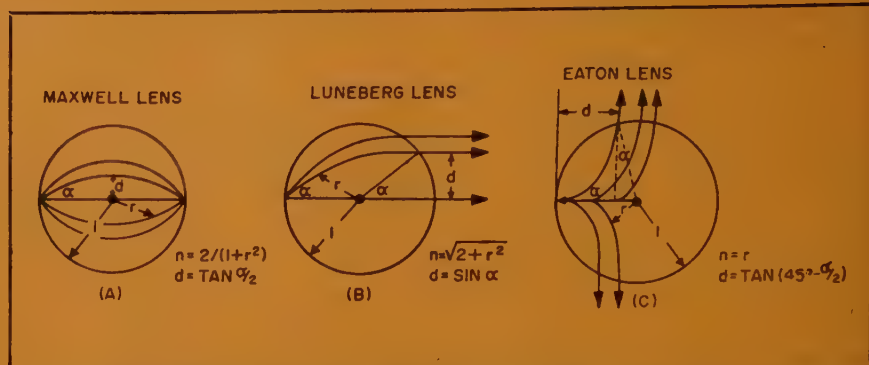


FIG. 2—Cross-sections of spherical lenses and ray paths. Design equations are for index of refraction n and distance from axis r

INDIVIDUAL LENSES, in conventional optical designs, have a constant refractive index and lens action is obtained by shaping the surfaces. In microwave optics design, the possibility of a variation in index from point to point within the lens is available, offering the designer another degree of freedom. For example, if it is desirable to minimize the thickness of a lens, focusing can be achieved partly by the lens surface and partly by a variation in the index of the material forming the lens.

Lens Materials

Materials available for lens design in microwave optics include low-loss dielectric materials such as polystyrene and Teflon. Aluminum-flake or carbon particles in a low-density foam dielectric achieve considerable weight reduction with a slight increase in lens loss. For all of these materials, the index of refraction is the square root of the dielectric constant, so in describing lens designs either of the terms refractive index or dielectric constant can be used.

The most straightforward technique for constructing a microwave lens which possesses a variation in refractive index involves the use of many different materials, each of which has a different refractive index. For example, a spherical lens can be made up of a small spherical core, together with

spherical shells of increasing radii.

The material in each shell can have a different value of dielectric constant or refractive index. By using a sufficient number of shells, the desired lens can be obtained to a reasonable approximation.

The major difficulty in this technique is obtaining the variety of dielectric materials and maintaining the desired dielectric constant from one production run of the material to the next. Most dielectric materials have a variation in dielectric constant of at least 3 percent between various samples. The finite error in dielectric constant places a practical limit on the degree of approximation to the desired refractive index.

Artificial Dielectric

Another technique involves artificial dielectrics obtained by using the fact that microwave wavelengths are of the order of a few inches, so that obstacles can be formed which simulate the molecules of a real dielectric. As long as these obstacles have small diameters and spacing compared to wavelength, the analysis of the artificial dielectric can be closely related to that of the real dielectric.

The most practical obstacle for general applications has been found to be of spherical shape. For such an obstacle, the refractive index is independent of the direction of the

wave passing through the lens.

It is possible to analyze the effective dielectric constant on the basis of the sphere diameter and the center-to-center spacing. These parameters can be replaced by a concept of fractional volume, that is, volume occupied by the spheres alone, compared to that occupied by the spheres and adjacent medium. The spheres considered were metallic or dielectric materials in a low-dielectric medium or voids in a base dielectric.¹ From the results of this study and a consideration of the mechanical problems involved in forming a lens, void-dielectric material was found best.

The dielectric constant K of an artificial medium comprised of a cubical lattice of spherical voids is¹

$$K/K_1 = (1 + 2FC)/(1 - FC) \quad (1)$$

Fractional volume F is the volume of the voids in unit volume; thus, F involves the void diameter and

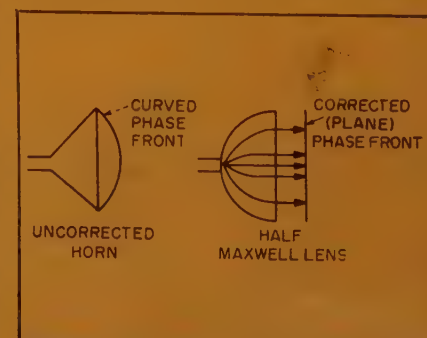


FIG. 3—Indication of phase-error correction through use of half-Maxwell lens

MICROWAVE LENSES

SUMMARY—Data for Maxwell, Luneberg, Eaton, Kelleher and modified types of variable index-of-refraction lenses aid antenna designers. New dielectric materials provide considerable weight reduction with slight increase in lens loss. Typical design example for Luneberg lens is covered

By K. S. KELLEHER

the void density in number per unit volume. Constant C is characteristic of the base medium,

$$C = (1 - K_1)/(1 + 2K_1) \quad (2)$$

where K_1 is the dielectric constant of the base medium. It has been found experimentally that Eq. 1 is valid even when the diameter and spacing of voids exceed $\lambda/4$.

Cylindrical Voids

For maximum flexibility in design and ease in machining, cylindrical voids can be used to replace spherical voids.

An experimental program determined the relationship between the cylinders and spheres. Typical measured data is shown in Fig. 1. The solid curve is calculated from Eq. 1, with $K_1 = 2.515$ (for polystyrene).

The points are experimental and apply to samples having eight cylinders per unit cube (measuring

0.936 inch on a side) and a cylinder length equal to cylinder diameter. Similar data was obtained for length-to-diameter ratios of $2\frac{1}{2}$. Maximum fractional volume for the two latter ratios was 16 percent. The largest cylinder diameter for which data is shown is approximately 0.172.

With the exception of a single point at large fractional volume, the maximum deviation of the measured dielectric constant from the value which would be predicted on the basis of spherical voids having the same fractional volume is one percent. This value is of the order of the experimental error. Larger cylindrical voids having a diameter of 0.344 were also tested.

A limited amount of data was taken because of the long length of sample which is required, but even with this very large element, the measured data was within 18 percent of that expected from the

spherical void theory. From these measurements, it is concluded that Eq. 1 is applicable within a few percent to all cases investigated, irrespective of the orientation of the cylinders.

Metal-Plate Media

A third technique for obtaining a variation in refractive index uses metal-plate media. The refractive index is obtained by considering the increase in phase velocity, which occurs when a wave polarized parallel to a set of parallel plates passes through the plates. This technique has been used successfully in the design of metal-plate lenses where the refractive index is known to depend on the spacing between plates.

If two metallic surfaces are arranged so there is a variation in spacing between the surfaces and if an electric field is introduced approximately parallel to the plates, then the phase velocity, and therefore the refractive index, will vary from point to point in the region between the metallic surfaces. The index approaches one when the spacing between plates is large compared to a wavelength and zero as the spacing is reduced. This technique for obtaining a variation in refractive index is limited to a two-dimensional lens or a three-dimensional structure.

If the spacing between plates is measured always normal to the

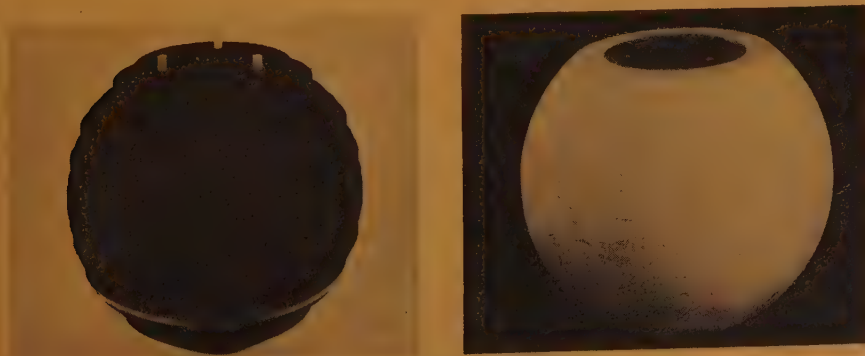


FIG. 4—Spherical Luneberg lens before (left) and after (right) foam binder application

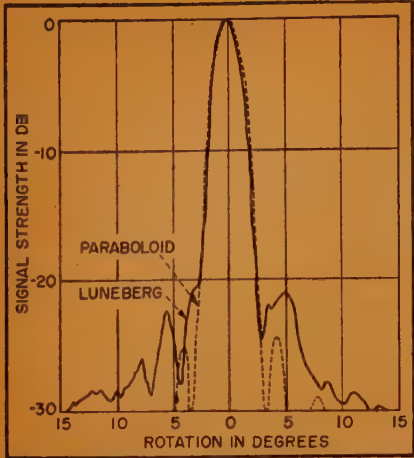


FIG. 5—Radiation patterns of Luneberg and standard parabolic lenses

particular tangent plane containing the electric-field vector, the index of refraction is related to spacing a and the signal wavelength by

$$n = \sqrt{1 - (\lambda/2a)^2}$$

If the spacing between plates is filled with a dielectric of constant K , the index is given by

$$n = \sqrt{K - (\lambda/2a)^2}$$

Spherical Lenses

Once techniques are available for obtaining a variable index material, consideration can be given to the design of microwave lenses having properties superior to those of conventional lenses.

One of the most useful families of variable-index lenses is that in which the lens surface is a sphere with the transmitting or receiving element mounted on the spherical surface. In such an arrangement, it is possible by use of different lens designs to obtain a formation

of the transmitted spherical wave into many different wavefronts, such as spherical surfaces,² toroidal surfaces³ and conical surfaces.⁴

Lenses which have been of most interest up to the present time are elements which yield spherical, plane and cylindrical surfaces; these are the Maxwell, Luneberg and Eaton. Cross-sections of these lenses, together with the ray paths and design equations, are given in Fig. 2.

Maxwell Lens

The Maxwell lens has been found useful in microwave applications as a correcting element in a sharply flared feed horn. In such a horn, the phase front across the aperture has the quadratic form shown in Fig. 3. Radiation patterns from this horn have, in general, high side-lobe characteristics.

To reduce these lobes, lenses of the dielectric or metal-plate type have been successfully used; however, one-half of the Maxwell lens offers improved possibilities in side-lobe reduction. This can be understood by considering the ray paths through such a lens.

In a sphere of unit radius (Fig. 2A), the ray leaving the feed at angle α intersects the aperture at a distance d from the axis given by $\tan(\alpha/2)$. This means that the rays, upon passing through this lens, tend to concentrate at the center of the aperture so there is a tapering in the illumination across the aperture.

Since tapered illumination produces low side lobes, it can be expected that better radiation pat-

terns can be obtained from a correcting lens of the Maxwell form than could be obtained with the conventional constant-index lenses.

Luneberg Lens

The most important lens in terms of application is the Luneberg. This spherical lens accurately focuses an incoming plane wave into a point on its surface. Because of its spherical symmetry, it can focus plane waves arriving from any direction, a characteristic not shared by any other known optical device. Figure 4 shows a Luneberg lens constructed from a void dielectric.

It is useful to compare the Luneberg lens to a paraboloidal reflector with circular aperture. If the diameter of the paraboloidal aperture is equal to the diameter of the Luneberg sphere, then a direct comparison can be made.

Figure 5 shows a typical pattern from the paraboloid, together with a pattern from a Luneberg sphere. Neither pattern represents the best that can be obtained from either antenna. However, they do indicate that the Luneberg lens has a narrower beamwidth than the reflector, but that the reflector shows some improvement in side-lobe level. These pattern characteristics arise from the fact that the paths followed by the rays in a Luneberg lens tend to concentrate energy towards the aperture edges.

The ray making angle α at the feed (Fig. 2B) intersects the aperture at a distance d from the axis of $\sin \alpha$. This reduction in illumination taper is known to cause an

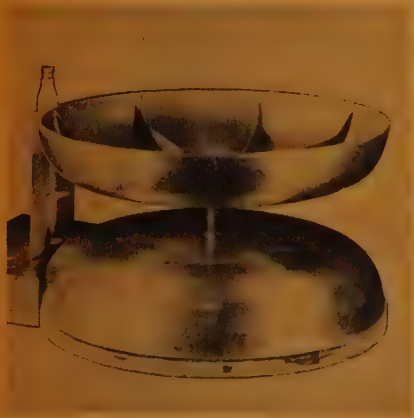


FIG. 6—Two-dimensional Eaton lens. Feed is mounted at left

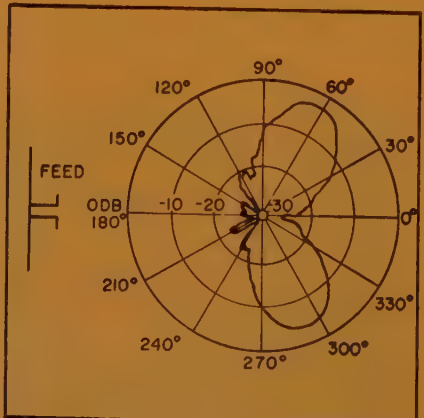


FIG. 7—Radiation pattern of Eaton lens shown in Fig. 6

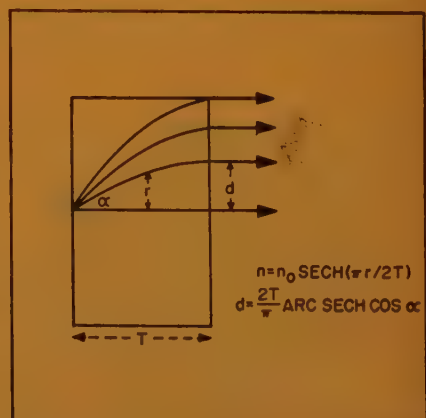


FIG. 8—Cross-section of constant-thickness lens

increase in side-lobe level and decrease in beamwidth.

Consequently, the Luneberg lens cannot be used for extremely low side lobe applications. However, for applications requiring side lobes of the order of 22 db, this lens can be used and, in such an instance, its symmetrical structure gives it a wide-angle performance not attainable by the normal paraboloidal reflector.

The wide-angle performance of the Luneberg lens indicates two general applications. The first of these is for wide-angle scanning. The lens structure can be fixed and a lightweight feed horn rotated so that it always touches the surface of the lens. The beam from the horn-lens combination is swept through an angle equal to the angle of the horn rotation.

Another application utilizes a single lens with multiple feeds. Each feed has a corresponding beam in a direction given by the line joining the feed to the center of the sphere. A number of these feeds can be used to provide coverage over a wide sector of space.

Eaton Lens

The Eaton lens produces a twin-beam radiation pattern from a single source mounted on the spherical surface as in Fig. 2C.

Consideration of the required index variation, that the refractive index be equal to the normalized radius, indicates the difficulty in constructing an Eaton lens. Since the normalized radius varies from zero to one, the refractive index must have the same variation.

Such values of refractive index cannot be achieved with normal or with artificial dielectrics. The only possibility is the use of a metal-plate medium. Such a medium has only restricted application to the Eaton lens, since it is based on the almost parallel plates previously mentioned. Use of parallel plates restricts the lens to two dimensions, so the complete sphere cannot be realized.

A two-dimensional Eaton lens has been constructed and evaluated. Fig. 6 is a photograph of the lens and Fig. 7 shows a typical radiation pattern. This lens operates over a limited frequency band.

Since the formula for index of refraction contains the operating wavelength, the index of refraction varies when this wavelength is changed.

Disk-Shaped Lenses

Another useful lens shape is the short cylinder or disk shown in cross-section in Fig. 8. These lenses have a preferred direction or optical axis, whereas spherical lenses perform equally well for waves from all directions. The optical axis of these disk lenses coincides with the cylinder axis, causing the unusual situation of lenses with plane surfaces.

Although the disk-shaped lenses do not have the wide-angle performance typical of the spherical lenses, they have found application in the microwave-optics field. One lens has been used as a feed-correcting element with good results.⁴ This corrector is a lens first described by Luneberg. Its index of refraction varies only with the radial coordinate, according to the expression $n = n_0 \operatorname{sech} [\pi r / (2T)]$, where n_0 is the axial refractive index and T is the thickness. Note that the index required is a function of the disk thickness; a change in thickness would alter the lens performance.

The ray making an angle α at the feed intersects the aperture at a distance d given by $(2T/\pi) \operatorname{arc} \operatorname{sech} (\cos \alpha)$. As indicated in the cross-section, the rays spread at the aperture edges to produce an illumination taper. This taper has been shown to be an approximation to a Gaussian distribution which produces very low side lobes.⁵ The exact distribution depends on the lens thickness and the maximum value of α .

It is of interest to compare this lens with the Maxwell lens, which can also be used as a feed corrector. The incident signal in the waveguide can be easily matched into a Maxwell lens with an index of unity at the lens surface. The constant-thickness lens, on the other hand, has an index requirement which indicates a value of the order of two along the lens axis, with decreasing index away from the axis.

The waveguide transmission line

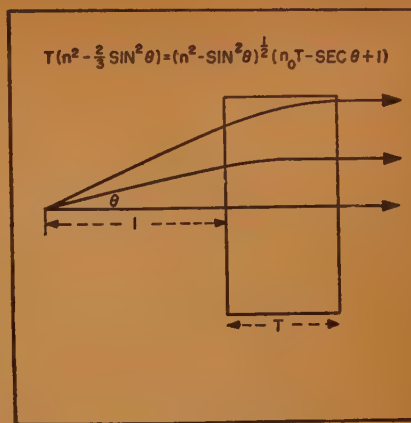


FIG. 9—Cross-section of Kelleher lens

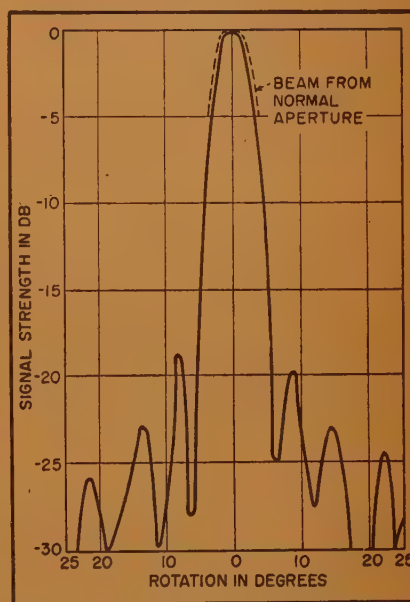


FIG. 10—Radiation pattern of Kelleher lens of Fig. 9

then has the problem of matching a section of air-filled line to a dielectric-filled line. Both lenses have the normal matching problem at the aperture.

The constant thickness lens permits a greater control over the illumination taper and, hence, better control over the side lobes from the corrected feed. Moreover, the depth of the corrected feed can be minimized in the constant thickness design, whereas the best ratio of feed depth to aperture is a value of $\frac{1}{2}$ for the Maxwell lens. Both lenses are superior to the conventional correcting lenses in that such lenses always have a ratio equal to or greater than unity.

Kelleher Lens

This lens has the same geometrical form as that of the previous

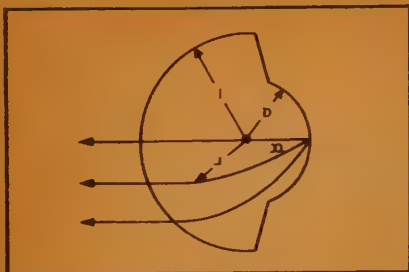


FIG. 11—Cross-section of modified Luneberg lens

disk; the major difference is that the source is placed on the axis of the cylinder at some distance from the lens. This is the only variable-index lens designs now available, which does not have the source adjacent to the lens surface. In this respect, it is most closely allied to the conventional lenses utilizing a constant index of refraction.

The ray paths through a cross-section of this lens are given in Fig. 9. It can be seen that the source has an image at infinity. The expression for the required radial variation in refractive index is more complex than those previously given. This variation is

$$T(n^2 - 2/3 \sin^2 \theta) = (n^2 - \sin^2 \theta)^{1/2} (n_s T - \sec \theta + 1)$$

where n_s is the index at the axis, T is lens thickness and θ is the angle between the axis and the radius vector from the source point to a general point of the adjacent lens surface.

This lens has been compared to a constant-index lens with shaped surfaces. A typical pattern, shown in Fig. 10, indicates that the beam-width from this lens is narrower than that expected from an aperture of this size. This is probably due to the existence of a trapped field about the periphery of the disk, which tends to produce a greater effective aperture.

A comparison of the off-axis characteristics of the two lenses showed that the variable-index lens was superior. Analysis involving ray tracing has also shown that good off-axis performance can be expected.

An interesting feature of any disk lens is that it can have a periodic structure as the thickness is increased. Any lens with feed adjacent to a surface has ray paths

which are curved to focus at an image point within the thicker lens, then diverge, and again curve to form a second image point and so on until the second lens surface is reached. The radiation pattern obtained depends on the point in the cycle where the second lens surface is introduced.

In the Kelleher lens, a similar periodic structure is obtained by doubling the lens thickness so the rays are curved to form an image at a point symmetrical with the source point. Additional lenses of equal thickness can be introduced at the correct positions to continue the periodic-ray variation.

Other Lens Shapes

Besides spherical and disk-shaped lenses, several others have been studied in the microwave-optics field. One of these is a modification of the Luneberg lens to minimize lens thickness. This modification permits a reduction in the radius of the lens in the region of the detecting system.

A cross-section through this lens, together with typical ray paths, is given in Fig. 11. A source at infinity is imaged perfectly at the corresponding point on the surface of reduced radius. Three existing expressions for the modified Luneberg lens are listed below for comparison:

$$(1) \quad n^2 = (2a - r^2)/a^2 \text{ for } 0 \leq r \leq a \text{ and } n^2 = (2 - r)/r \text{ for } a \leq r \leq 1;$$

$$(2) \quad 4an^3 = \frac{(1+P)[\sqrt{\delta(1+a)} + \{4P^2 + (1-a)^2\}^{1/2}]}{(P + \sqrt{\delta a})^2}$$

for $0 \leq r \leq a$ and $r^2 n^2 = 1 + \delta(1-r)(r-a)$ for $a \leq r \leq 1$ where $P = 1 - r^2 n^2$ and δ is a constant;

$$(3) \quad n^2 = (1 + a^2 - r^2)/a^2 \text{ where } a \text{ is the radius of the lens in the reduced region.}$$

Typical Lens Design

Design of any of the lenses described is relatively simple since the index varies only with one coordinate.

A typical design involves the spherical Luneberg lens whose index varies with radius as $n^2 = 2 - r^2$. At this point, it should be observed that the index squared is equal to the dielectric constant, so it is possible to relate the lens-design equation directly to dielectric-constant

values. The design technique found most practical uses the void dielectric of Eq. 1 and 2. The desired sphere is formed from a collection of disks of varying radius, placed one above the other, to approximate a spherical form similar to that in Fig. 4.

There are four steps in the design.

(1) Select base material of dielectric constant K_1 and obtain the coefficient $C = (1 - K_1)/(1 + 2K_1)$; using polystyrene with $K_1 = 2.52$, $C = -0.252$. (2) Write Eq. 1 using values of K_1 and C to obtain a relationship between void-dielectric constant and fractional volume; $K = 2.52 (1 - 0.504 F)/(1 + 0.252 F)$. (3) Combine the lens equation relating dielectric constant to coordinate value with Eq. 1 to obtain a relationship between coordinate value and fractional volume; $2 - r^2 = 2.52 (1 - 0.504 F)/(1 + 0.252 F)$. (4) Compute fractional volume as a function of the position within the lens.

To use the disk assembly technique, note that $r^2 = d^2 + a^2$ where d is the distance of the disk from the lens center and a is the radius coordinate within the disk. The fractional volume is then given by

$$F = 3.97 \left\{ \frac{0.52 + a^2 + d^2}{7.04 - a^2 - d^2} \right\}$$

For a disk at a given distance d from the lens center, the fractional volume at any disk radius is known.

In practice, each disk is divided into annular rings of width less than $\lambda/4$ so no void will be large in terms of a wavelength. The desired fractional volume in each annular ring is determined from the above equation. This void volume is then obtained by drilling the correct size and number of holes.

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SLAB LINE NOMOGRAPH

SUMMARY—Design of air-dielectric slab line used as transition or matching section between coaxial and strip transmission lines. Nomograph relates characteristic line impedance, diameter of inner conductor and separation between parallel ground planes

By ELIO SION

SLAB LINES have numerous applications in microwave transmission circuits.

The slab line is a double-slotted coaxial line whose outer shield has been unwrapped and extended to infinity in both directions. The resulting configuration consists of a round cylindrical conductor between two parallel planes, for which exact impedance formulas have been developed.¹

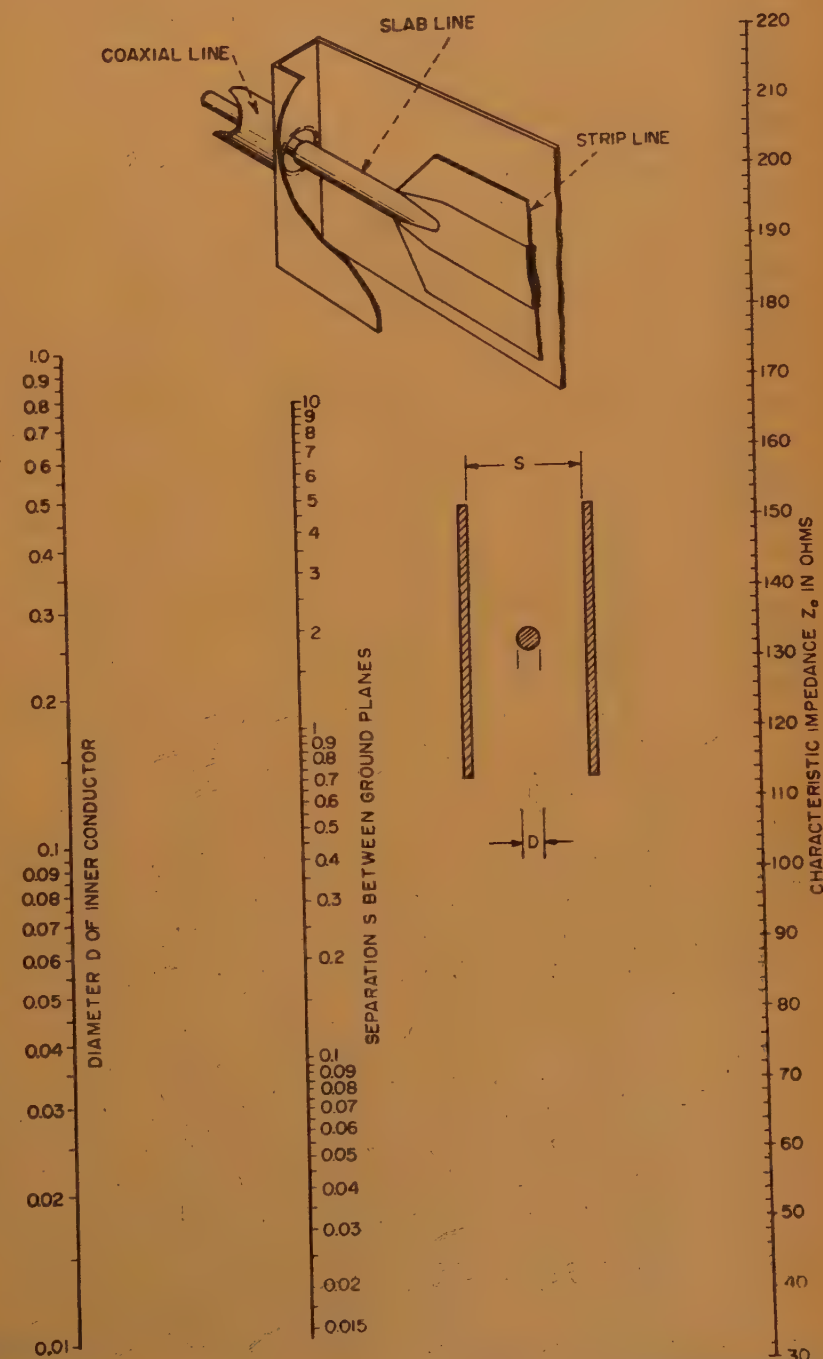
The simplified formula² $Z_0 = 138 \log_{10} (4S/\pi D)$ used in the construction of the accompanying nomograph for such slab lines is accurate to within 2 percent for values of $S/D > 1.5$.

Suppose it is desired to design a slab line of 100 ohms impedance with an inner conductor 0.025 inch in diameter. Enter the left-hand column at $D = 0.025$ and connect that point with a straight line to $Z_0 = 100$ ohms on the right-hand column. The center column yields the separation between plates as 0.105 inch.

To prevent radiation the width of the ground plates should be, as a rule of thumb, at least five times the separation between plates. Here $5 \times 0.105 = 0.525$ inch, so make the plates at least $\frac{1}{2}$ inch wide.

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Nomograph for designing slab lines used as transitions or matching sections between coaxial lines and strip transmission lines

EQUIVALENT R-Z CHART

SUMMARY—Parallel components of resistance and reactance in a given frequency range for an unknown circuit can be obtained quickly and easily by use of Q meter and nomographs

THE Q METER is useful in obtaining the parallel components of resistance and reactance of a network. When a number of readings are to be taken over a frequency range, the use of nomographs can provide a saving in time and effort. The procedure for using the nomographs is as follows:

Tune the Q meter to resonance at the measurement frequency,

By HALLAN E. GOLDSTINE

using a relatively high-Q shielded coil. Record the frequency, Q-meter capacitance reading and the Q reading. These are f , C_1 and Q_1 .

Connect the unknown network

across the capacitance terminals of the Q meter. Without changing frequency, retune the capacitance of the Q meter to resonance. Only measurement values within the proper range can be used, otherwise the readings may not be obtainable on the Q meter.

Record the capacitance and Q with the network connected

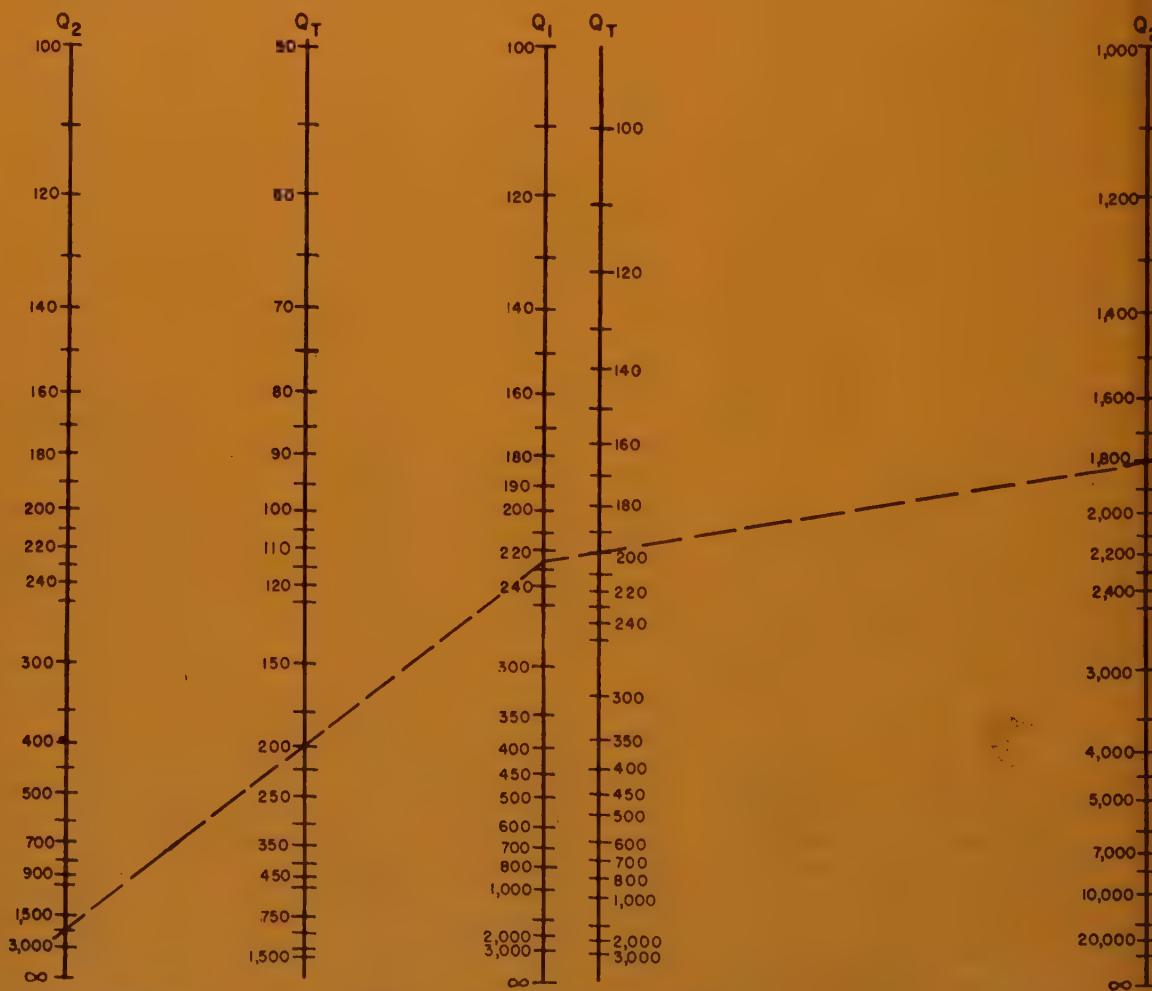


FIG. 1—Chart gives Q_2 value for solution of parallel resistance equation

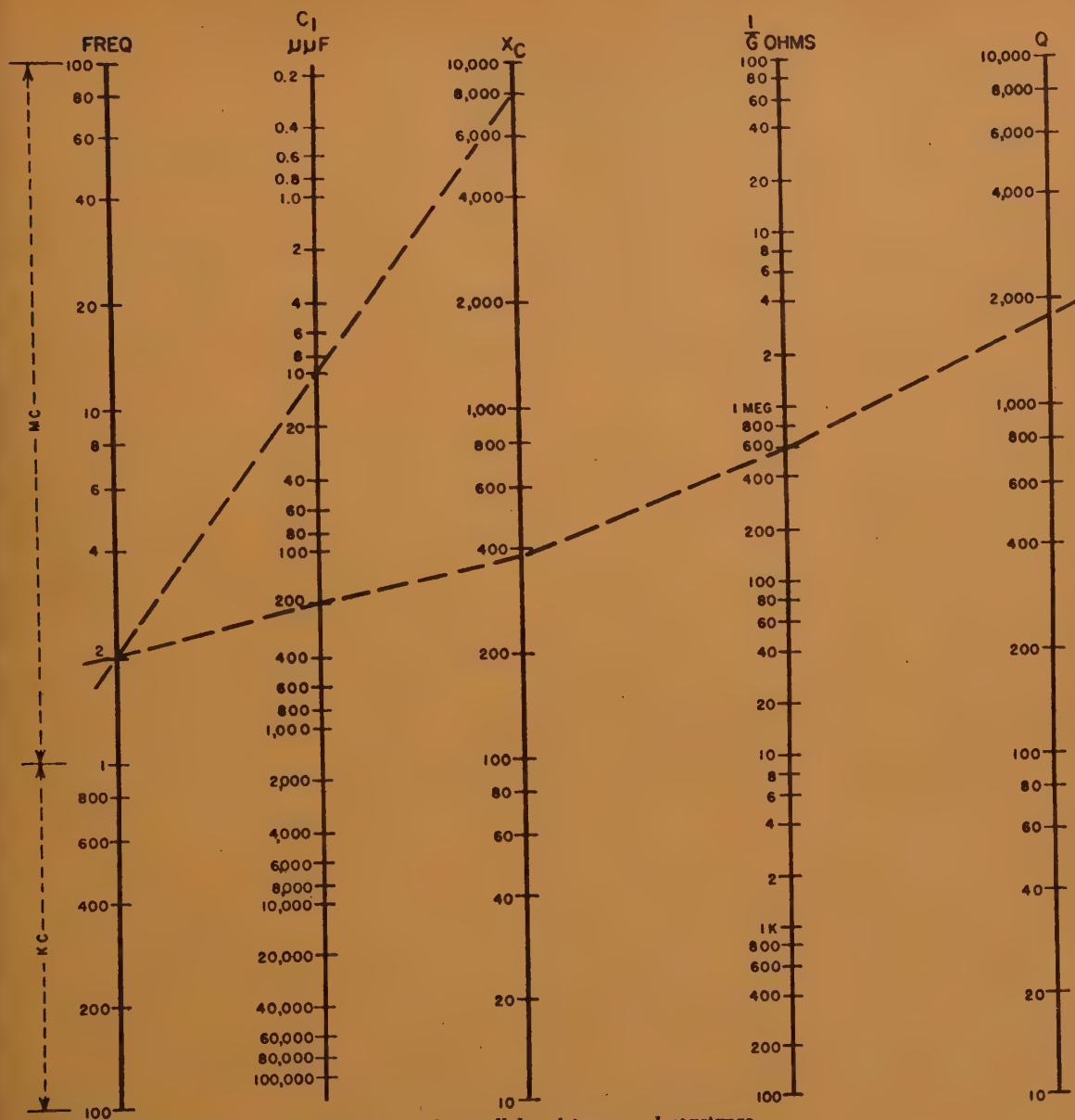


FIG. 2—Nomograph solves equations for both parallel resistance and reactance

The parallel resistance and reactance are

$$\frac{1}{G} = X_{C_1} Q_2 \quad Q_2 = \frac{Q_1 \times Q_T}{Q_1 - Q_T}$$

$$\frac{1}{B} = \frac{-j}{\omega(C_1 - C_T)}$$

where $1/G$ = parallel resistance in ohms and $1/B$ = parallel reactance in ohms.

As an example, at a frequency of 2 mc the Q meter readings were $C_1 = 210 \mu\mu f$, $Q_1 = 225$.

After connecting the network, readings were $C_T = 200 \mu\mu f$ and $Q_T = 200$.

Referring to Fig. 1 a straightedge is placed across from 225 on the Q_1 column, through the value of 200 on the Q_T column, and approximately 2,000 is obtained on the Q_2 column on the left side. To obtain better accuracy for high Q values, the right side of the chart is used. By placing the straightedge on the Q_1 value of 225, through Q_T value of 200 on the right, the Q_2 value of approximately 1,800 is obtained on the right-hand Q_2 column.

Using Fig. 2, the straightedge is placed on the frequency of 2

mc and the capacitance C_1 reading of 210. The X_C reading of 380 is read. The straightedge is then placed from 380 on the X_C column to the Q reading of 1,800 giving a value of 700,000 ohms.

Reactance component $1/B$ is equal to $-j/\omega(C_1 - C_T)$. To obtain this value from Fig 2, set straightedge again on 2 mc, through value of $(C_1 - C_T)$, in this case $210 - 200 = 10 \mu\mu f$, and the value of 8,000 is read off the X_C scale.

The parallel components are thus $1/G = 700,000$ ohms and $1/B = -j 8,000$ ohms.

UNIVERSAL RESPONSE CURVES

— By HERMAN I. LEON and HOWARD WEINBERGER —

SUMMARY—Graph showing spurious responses that may occur in wide-band uhf and vhf superheterodyne receivers aids in selection of intermediate frequencies and specifications for preselector selectivity

SELECTIVITY of superheterodyne receivers makes possible a high degree of protection from adjacent-channel interference. Unless the receiver is properly designed, however, it is possible for a signal not in the immediate vicinity of the dial setting to produce a spurious response.

It is possible, by proper choice of the intermediate frequency, to place these spurious response frequencies far from the dial setting. In this way, the preselector selectivity required for a given spurious response attenuation is minimized.

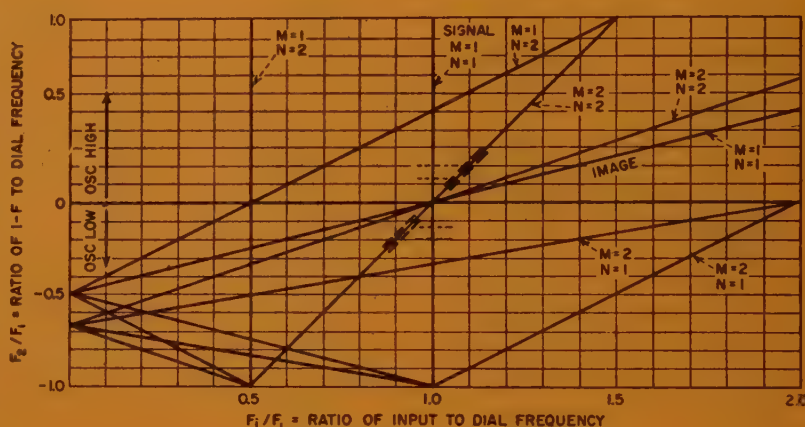
Equations

A spurious response is produced whenever integral multiples of the input and local oscillator frequencies differ by the intermediate frequency. The curves presented here show the strongest responses. Additional curves may be constructed for the higher-order responses from

$$\frac{F_2}{F_1} = \pm \frac{N}{M \pm 1} \frac{F_i}{F_1} - \frac{M}{M \pm 1} \quad (1)$$

where F_1 = dial frequency, F_2 = center of i-f passband, F_i = any input frequency, M = order of local-oscillator harmonic and N = order of signal harmonic.

This is the equation of a series of lines. For the local oscillator frequency above the dial frequency, only positive values of F_2/F_1 apply. For the local oscillator frequency below the dial frequency, only negative values of F_2/F_1 apply.



In the case of a receiver with a wide i-f bandwidth or one with a sweeping local oscillator, each line becomes a band whose boundaries are obtained by drawing two lines parallel to and equidistant from the original line. The displacement in the vertical direction from the original line is

$$\pm \frac{1}{2} \left[\frac{M}{M \pm 1} \frac{B_o}{F_1} + \frac{1}{M \pm 1} \frac{B_2}{F_1} \right] \quad (2)$$

where B_2 = i-f bandwidth and B_o = sweep band of local oscillator, if any.

Example

As an example, for a vhf receiver tunable from 100 to 150 mc and having a 20-mc i-f, the ratio F_2/F_1 ranges from 0.20 to 0.13 over the dial. Referring to the chart, it is seen that, for the local oscillator on the high side, the $M = 2, N = 2$ harmonic response will appear for input frequencies 6.5 to 10 percent above the dial frequency (about 10 mc

above the dial frequency). If a 2-mc i-f bandwidth is assumed, the bandwidth term, calculated from Eq. 2 and represented by the dashed lines, reduces this margin by about 1 mc. For a crystal mixer the $M = 2, N = 2$ response is normally attenuated about 35 db. If the dynamic range of the receiver is greater than this, r-f preselection is necessary.

Other harmonic responses at midband are $M = 1, N = 2$ at 50 percent and at 33 percent below the dial frequency, $M = 2, N = 2$ at 25 percent above, the image $M = 1, N = 1$ at 35 percent above.

For the local-oscillator frequency below the dial frequency, the closer harmonic responses appear for the image $M = 1, N = 1$ at 35 percent below the dial frequency, $M = 2, N = 2$ at 25 percent and at 5 to 9 percent below, $M = 2, N = 1$ at 50 percent and at 92 percent above dial frequency.

RADAR PERFORMANCE NOMOGRAPH

SUMMARY—Pulsed radar performance is found in terms of percent of rated range available for a given radar target area when transmitted pulse width, average pulse power, minimum detectable signal and prf are known

RADAR PERFORMANCE can generally be determined by measuring the transmitted pulse width and pulse repetition frequency (duty cycle), the averaged transmitted power and the minimum detectable signal. With these measurements, this nomograph provides a rapid method of determining the performance of a pulsed radar in terms of the percent of rated range available for a target of given radar area.

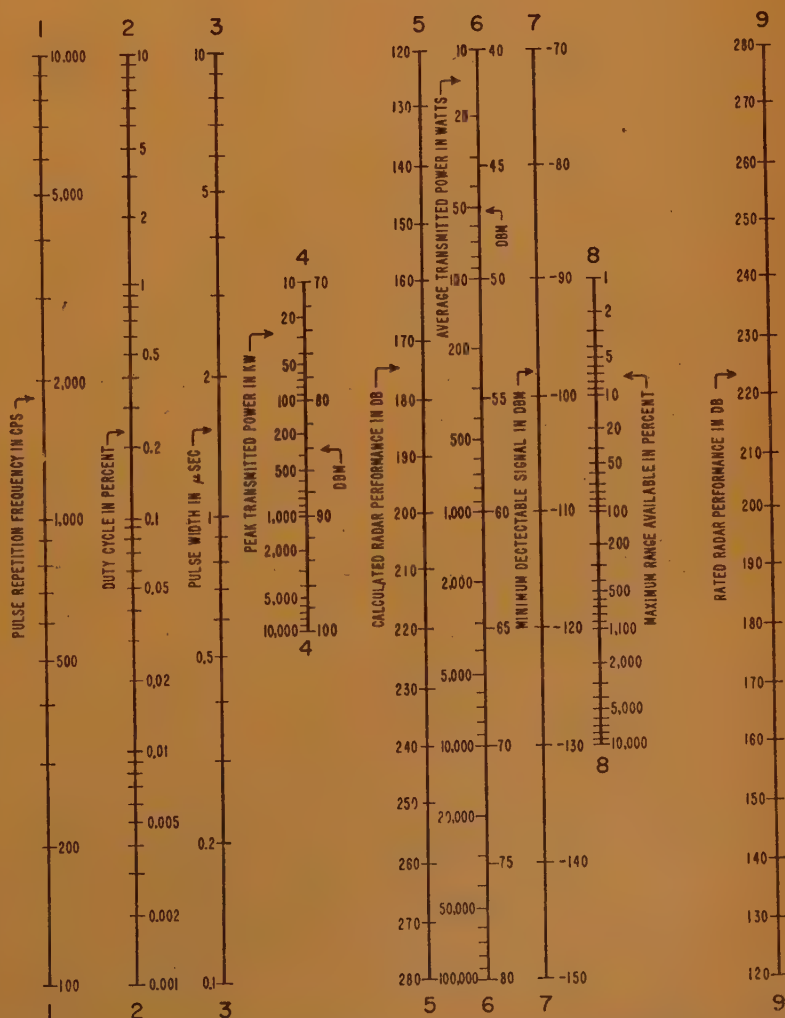
(1) Connect the pulse repetition frequency on scale 1 with the pulse width on scale 3. The intersection of this line with scale 2 will be the duty cycle.

(2) Connect the average transmitted power on scale 6 with the duty cycle on scale 2. The intersection of this line with scale 4 will be the peak transmitted power.

(3) Connect the minimum detectable signal on scale 7 with the peak transmitted power on scale 4. The intersection of this line with scale 5 will give the radar performance figure.

(4) Connect the rated performance of the radar on scale 9 with the calculated radar performance found on scale 5. The intersection of this line with scale 8 will be the percent of maximum range available for a given target. For instance, if scale 8 is intersected at the 200-percent point, a target which would normally not be detected until it was 40 miles away can be detected at 80 miles.

By EDWARD A. WOLFF



DESIGN CHART FOR SELECTIVE CATHODE TRAPS

By K. HILLMAN

SUMMARY—Equations for determining attenuation introduced at trap frequency and at other desired frequency used with chart speed determination of values for R, L and C for cathode trap. Graph can also be used to determine bandwidth of trap

IN DESIGNING cathode traps of the type shown in Fig. 1, attenuation must be introduced at a trap frequency, f_0 , without greatly affecting the gain at some other frequency, f .

It is useful, therefore, to consider how the gain at f relative to the gain at f_0 varies with trap Q, normalized frequency spacing δ , and the increased loss at f due to the presence of the trap. A cathode resistor R_k has been included in the circuit, but may be set to zero or bypassed, if desired.

Chart Construction

In obtaining the expression from which the chart is plotted, the following assumptions are made: grid-cathode and cathode-ground capacitances are negligible, the tube is a constant-current generator ($i_p = g_m e_{gk}$) and the trap may be represented by a parallel combination of R, L and C.

Let $|\bar{r}_1| \equiv \frac{\text{gain reduction factor at } f \text{ with trap}}{\text{gain reduction factor at } f \text{ or } f_0 \text{ without trap}}$

$$= \frac{\left| 1 + g_m \left[R_k + \frac{R}{1 + jQ\delta \frac{(2+\delta)}{(1+\delta)}} \right] \right|}{1 + g_m R_k}$$

and $r_2 \equiv \frac{\text{gain reduction factor at } f_0 \text{ with trap}}{\text{gain reduction factor at } f_0 \text{ or } f \text{ without trap}}$

$$= \frac{1 + g_m (R + R_k)}{1 + g_m R_k}$$

It can then be shown that

$$\frac{r_2}{|\bar{r}_1|} = \left[\left(Q\delta \frac{(2+\delta)}{(1+\delta)} \right)^2 \left(\frac{|\bar{r}_1|^2 - 1}{|\bar{r}_1|^2} \right) + 1 \right]^{1/2}$$

The ratio

$$\frac{r_2}{|\bar{r}_1|} = \frac{\text{gain reduction factor at } f_0 \text{ with trap}}{\text{gain reduction factor at } f \text{ with trap}}$$

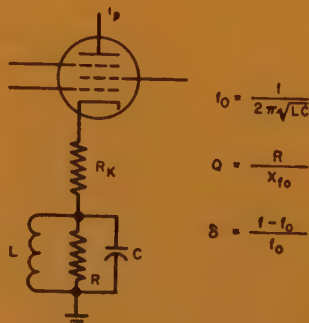


FIG. 1—Basic cathode trap circuit

has been plotted against $Q |\delta(2+\delta)/(1+\delta)|$ for various values of $|\bar{r}_1|$. In addition, contour lines indicating levels where the value of r_2 remain constant are shown on the chart.

Example

An example of a typical design problem will show how the chart can be used to obtain component values and aid in gaging the trap bandwidth.

It is desired to reduce the gain at 10 mc by a factor of 20 relative to the gain at 7 mc.

The gain at 7 mc is to be decreased by no more than five percent. The circuit constants are $R_k = 0$, $g_m = 5,000 \mu\text{mhos}$. Find R , L and C .

The intersection of $r_2/|\bar{r}_1| = 20$ and the curve corresponding to a value of $|\bar{r}_1| = 1.05$ occurs for an abscissa corresponding to

$$Q \left| \delta \frac{(2+\delta)}{(1+\delta)} \right| = 66$$

since

$$\left| \delta \frac{(2+\delta)}{(1+\delta)} \right| = (0.3) \frac{1.7}{0.7} = 0.73,$$

$$Q = \frac{66}{0.73} \cong 90$$

Also, $r_2 = 1.05 (20) = 21 = 1$
 $g_m R = 1 + 0.005R$ so that
 $R = 4,000$ ohms

$$10 \text{ mc} = \frac{R}{Q} = \frac{4,000}{90} = 44 \text{ ohms}$$

from which

$$L \cong 0.7 \mu\text{h}$$

$$C \cong 360 \mu\text{f}$$

Suppose a $0.7\text{-}\mu\text{h}$ coil is now
 made and found to have a $Q > 90$.
 Let the measured value be $Q =$
 30 . The chart shows that the
 intersection of $r_2 = 1 + 20$
 $30/90 = 30$ and $Q|\delta(2 + \delta)|/$

$(1 + \delta)| = 94$ occurs for value
 of $r_2/|\bar{r}_1| \cong 28.5$ and for $|\bar{r}_1| =$
 1.05 .

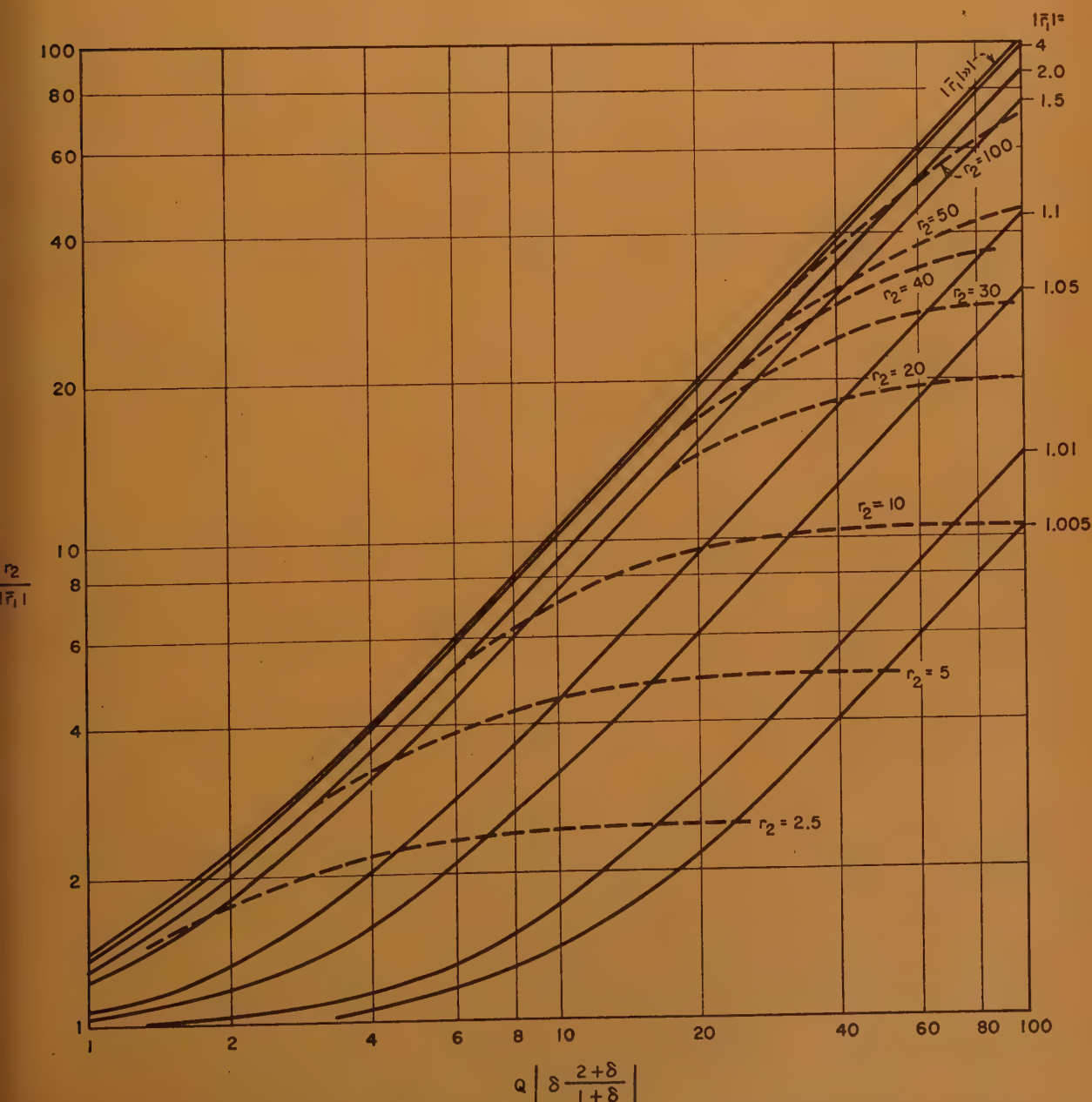
If desired, the inductance may
 be reduced, assuming the coil Q
 is held constant, so that $r_2/|\bar{r}_1| =$
 20 is again obtained but at a
 value of $|\bar{r}_1| < 1.05$.

Trap Bandwidth

Sometimes a band of fre-
 quencies rather than a single
 frequency is to be attenuated.
 The chart may be used to gage

the trap bandwidth. In the pre-
 ceding example, the range of fre-
 quencies where the gain relative
 to 7 mc is decreased by a factor
 of ten or more can be found.

Since $r_2 = 21$, for $|\bar{r}_1| \geq 10$
 $(1.05) = 10.5$, $r_2/|\bar{r}_1| \leq 2$.
 The intersection of $r_2/|\bar{r}_1| = 2$
 with the curve $|\bar{r}_1| > 1$ occurs at
 about $Q|\delta(2 + \delta)|/(1 + \delta)| \cong$
 $2 Q|\delta| \cong 1.7$, so that $2|\delta| \cong 1.7/$
 $90 \cong 0.019$. Hence the trapping
 bandwidth (as defined) is 0.019
 (10) or 0.19 mc .



TRANSISTOR FLIP-FLOP

SUMMARY—Flip-flops for digital computers may be designed in three ways: direct coupled, emitter coupled or resistance coupled. Delay and transition times are discussed for these circuits under loaded and unloaded conditions. Non-saturating circuits and the effects of loading with zero to four transistor bases are also given

By A. K. RAPP and S. Y. WONG

TRANSISTORS HAVE made possible electronic computers requiring only a small fraction of the space and power required by the vacuum tube equivalent.

This article compares maximum speeds measured for changes of state for three types of circuits using surface-barrier transistors.

Basic Pulse Amplifiers

Shown in Fig. 1, the three basic types of pulse amplifier circuits are the direct-coupled, the resistance-coupled and the emitter-follower-coupled cascades.

Figure 1A illustrates the simplest method of coupling cascaded common-emitter stages by connecting the output of one stage directly to the base of the following stage.¹

The circuit modification in Fig. 1B overcomes one of the principal limitations in the switching speed of transistors, the storage of minority carriers in the base region of a saturated transistor. This storage produces a time delay at the collector on application of a cutoff signal.

One convenient means of reducing turnoff time delay is to limit

the base current by inserting resistance in the base leads. Capacitors are shunted across the base resistors to help speed up the circuit.

Figure 1C illustrates the use of an emitter follower as an active coupling network. The emitter follower does not suffer from hole storage and its low source impedance permits high charging currents to be supplied to the stray and internal capacitances, usually the limiting factors in fast pulse operation.

Figure 2 shows flip-flops using

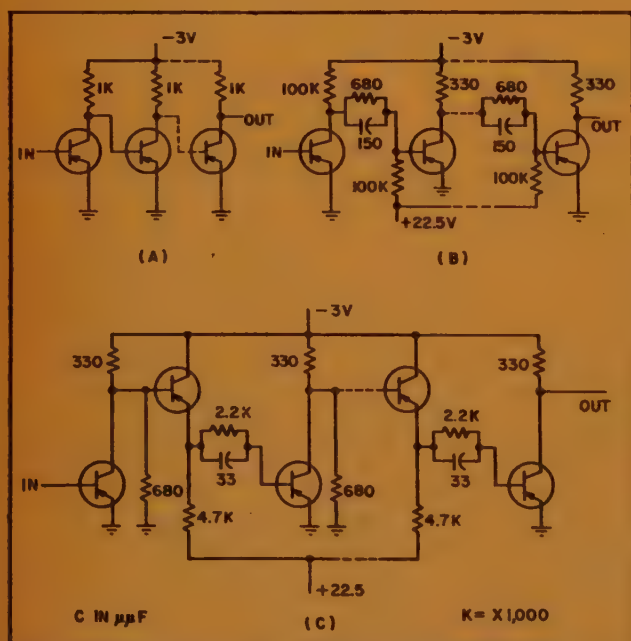


FIG. 1—Direct-coupled (A), resistance-coupled (B) and emitter-follower-coupled (C) pulse amplifiers coupled in cascade

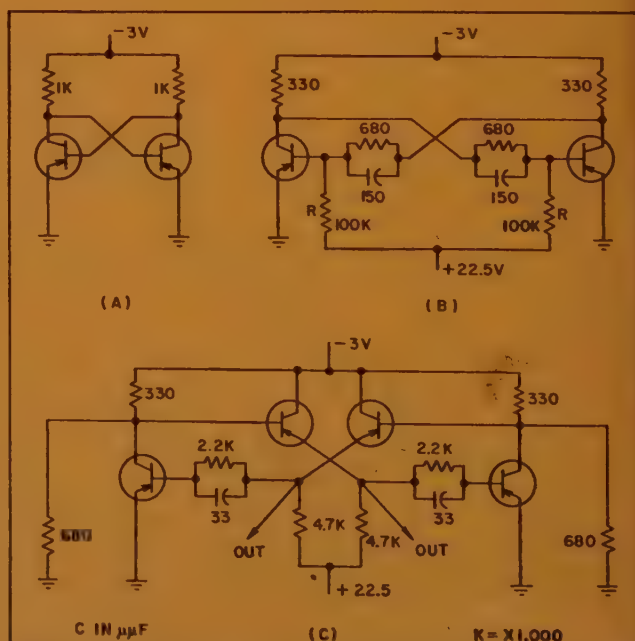


FIG. 2—Flip-flops derived from circuit configurations of Fig. 1. Circuit (A) contains a minimum number of components

the three types of coupling given in Fig. 1. The circuit of Fig. 2A is a simple flip-flop circuit containing a minimum of components.

The flip-flop of Fig. 2B is analogous to the Eccles-Jordan circuit. It may be operated without the bias network consisting of +22.5 v and resistors, R , since the network has no effect on speed but increases reliability.

The emitter-follower stages of Fig. 2C produce buffering action and consequently provide convenient output terminals.

Switching Times

The direct-coupled flip-flop of Fig. 2A is redrawn in Fig. 3 to illustrate the switching times employed as criteria of high-speed performance. The delay time, δ is the time interval between the point where the collector potential of the gating transistor changes by 10 percent of its total voltage excursion and the point where the collector potential of the off-going transistor falls 10 percent of its total voltage excursion.

The total transition time X is the delay plus the fall time of the collector voltage of the off-going transistor. Fall time is the time required for the collector voltage of the off-going transistor to move from 10 percent to 90 percent of its voltage excursion.

Time Measurement

Delay and transition times were measured with the flip-flops loaded symmetrically with from zero to four pairs of transistor bases. Owing to its higher ratio of collector to base current, the resistance-coupled circuit has considerable less delay than the direct-coupled circuit. Transition time is more indicative of operational speed since it represents the total time required for the flip-flop to acquire a new state. Using transition time as the criterion, the resistance-coupled circuit requires about 18 percent less time than

the direct-coupled, while the added complexity of emitter-follower coupling results in a 70 percent reduction in transition time.

Speed

The speed of the direct-coupled circuit increases to double its no-load value when it is loaded with four pairs of bases, while the resistance-coupled circuit is slowed down by the addition of load. The buffer action of emitter followers allows the emitter-follower-coupled flip-flop to remain relatively unaffected by load.

The nonsaturating, resistance-coupled flip-flop² shown in Fig. 4 makes use of small resistors connected from each base to ground to form a voltage divider which limits the voltage swing of the base. The insertion of resistance into the circuit common to both emitters provides d-c feedback which forces the emitter to follow about 0.3 v more positive than the base of the conducting transistor. Since this base-to-emitter potential is independent of the emitter resistance, the choice of resistance controls the emitter current. Once the base voltage and emitter current are fixed, the collector current is also determined. A small collector resistance then holds the collector voltage of the conducting transistor sufficiently negative with

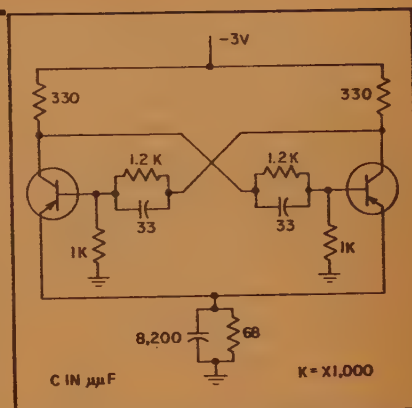


FIG. 4—Nonsaturating resistance-coupled flip-flop has d-c feedback

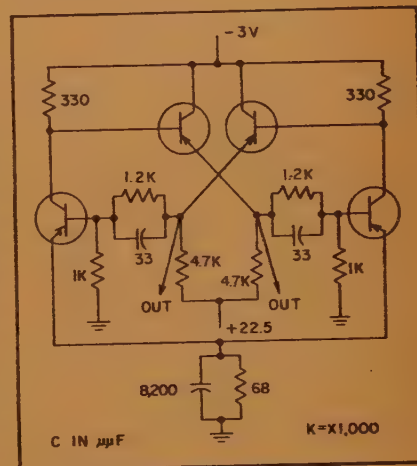


FIG. 5—Nonsaturating emitter-follower-coupled flip-flop uses emitter biasing

respect to the base to prevent saturation.

The nonsaturating, emitter-follower-coupled flip-flop shown in Fig. 5 also applies the emitter-biasing method of preventing saturation to the emitter-follower-coupled flip-flop.

The avoidance of saturation produces a reduction of more than 60 percent in the transition time of the resistance-coupled circuit. Prevention of saturation in the emitter-follower circuit results in an increase in speed to the extremely fast transition time of 22 millimicroseconds.

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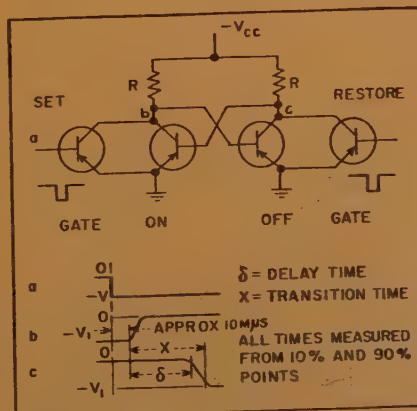


FIG. 3—Direct-coupled flip-flop illustrates switching time criteria for high-speed performance with symmetrical loads

TOROIDAL VIDEO TRANSFORMER DESIGN

—By G. W. GRAY—

SUMMARY—Design data is given for tv video transformers with 6-mc bandwidth that drive a 50-ohm coaxial cable. In addition to line-driver applications, transformers can also be used as interstage-coupling devices in transistor video amplifiers

WHEN DRIVING a low impedance such as a coaxial cable from a vacuum tube or transistor, there is a loss of gain due to the poor impedance match between the load and the driving source. If the signal is narrow band, a transformer is usually used to produce a better impedance match.

This article describes the development of transformers to drive a 50-ohm coaxial cable with television video signals of 6-mc bandwidth. To ease the low-frequency requirement to passing a 15-kc square wave, the technique of using a keyed-clamp stage following the transformer has been assumed. This is the existing situation in television cameras where the video signal is amplified first in the camera and then transmitted over cable to another amplifier for additional amplification.

A gain of one-third is usually realized from the grid of the last tube in the camera to the grid of the first tube in the remote amplifier. If a transformer with a three or four-to-one turns ratios could be inserted between the line driver and the line, the gain of one-third would be increased to unity. If a second transformer could be used to step up the voltage between the cable and the grid of the first tube in the remote amplifier, the gain could be raised from unity by whatever step-up ratio could be obtained.

Core Material

The transformers are wound on Supermalloy tape-wound toroids manufactured by the Arnold Engi-

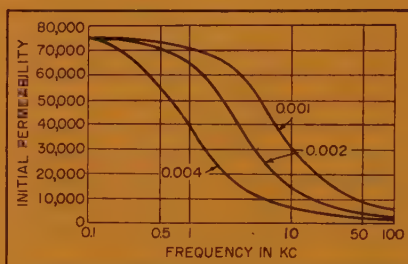


FIG. 1—Effect of tape thickness on initial permeability of Supermalloy

neering Co. Magnetic properties of this type core are particularly suited to video transformers. The low-frequency permeability is approximately 70,000, providing the necessary inductance with relatively few turns.

The permeability is a function of frequency—high at low frequencies and low at high frequencies. This feature is of importance since the distributed capacity that tends to resonate the primary would have to be impractically low if the permeability were uniformly maintained at all frequencies. This effect allows high primary inductance at low frequencies, where it is required, and effectively decreases the inductance at high frequencies, to prevent resonance with the distributed capacity within the pass-band.

As an example, transformers with a primary inductance of the order of $\frac{1}{2}$ henry at 1 kilocycle are needed for good low-frequency response. If such an inductance were maintained up to 6 mc, the capacity required to resonate the primary would be about 1,000 $\mu\mu\text{f}$. Fortunately, the permeability of tape-

wound cores changes radically from low to high frequencies so the required inductance is obtained at low frequencies, but a much lower inductance is present at high frequencies. Thus resonance with the distributed capacitance is avoided at least until a much higher frequency than with a constant permeability core.

Since it is a lack of penetration of the core material by the magnetic flux that causes the decrease in permeability with increasing frequency, the core tape thickness will control the frequency at which the permeability changes. This effect is shown in Fig. 1.

Coupling

Although loss of permeability with frequency is necessary, it is not without ill effects. With a high permeability toroidal core, the coupling between primary and secondary is good and independent of the physical configuration of primary and secondary. However, with

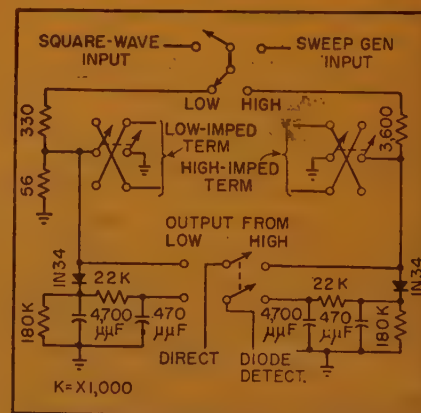
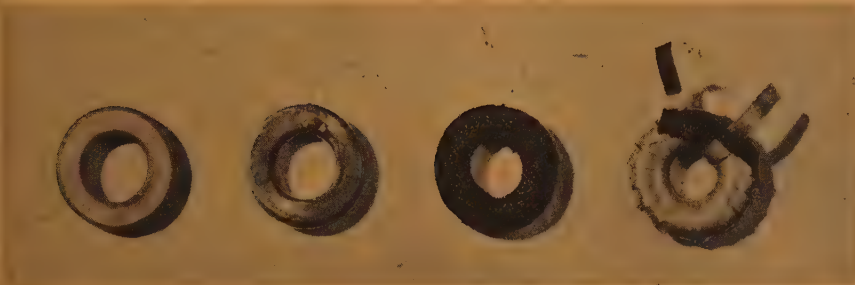


FIG. 2—Test circuit for video transformers



Steps in transformer construction, from left to right: core; core with primary; primary with rayon-tape cover; complete transformer



Completed video-transformers mounted in protective cases

a low permeability core, the coupling is almost entirely dependent upon the physical configuration of the primary and secondary. Therefore, the physical configuration of the windings must be designed for good coupling between primary and secondary without aid from the core material.

To evaluate and compare experimental transformers, the test setup of Fig. 2 was used. Either the low or high-impedance windings can be driven from a sweep or square-wave video generator, with about 3,600-ohm driving impedance for the high-impedance winding and about 50-ohm driving impedance for the low-impedance winding. Likewise, the voltage across either the high or low-impedance winding can be observed either directly for square waves or with a diode detector for sweep response. Two switches are provided to reverse the end of the winding which is grounded, for either primary or secondary.

Windings

The primary winding used on all of the transformers is a single layer of uniformly spaced wire going around the toroid, thus producing minimum distributed capacity for the number of turns required.

The secondary winding is similar to the primary but of fewer turns, distributed uniformly over the primary and spaced a small distance away. The secondary must be distributed over the primary to maintain coupling at high frequency where the core has negligible permeability. Spacing between pri-

mary and secondary is necessary to minimize the capacity between primary and secondary, although too wide a space will decrease coupling.

To verify the frequency range over which the core contributes to the coupling, a transformer was made with the primary wound on one half of the toroid and the secondary on the other half. Response was normal at low frequencies, but fell off rapidly in the region where permeability decreased in accordance with the curves in Fig. 1.

To show that coupling is good

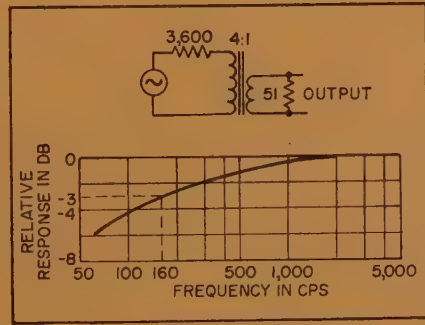


FIG. 3—Low-frequency response of video transformer

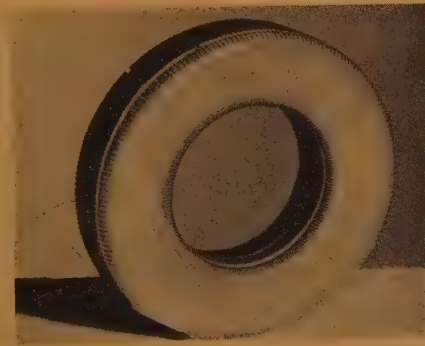


FIG. 4—Primary winding on 4-mil core

with the secondary wound over the primary, a transformer was wound with a lucite toroidal core the same size as the Supermalloy cores. The resulting transformer had a uniform response from 1 to 12 mc, showing that magnetic core material is not necessary above frequencies of 1 mc.

Core Permeability

The core material has a permeability considerably greater than unity even in the megacycle region. It increases the inductance so as to cause a resonance and limit the high-frequency response. The curves in Fig. 1 indicate the use of a thicker tape would result in a permeability that starts to decrease at a lower frequency and might thereby be expected to be down to a lower percentage of its low-frequency permeability at any particular high frequency. The material which loses permeability at the lowest frequency is 4-mil tape; therefore, this material was tried. One and 2-mil tapes have also been tried, but the 4-mil tape seems to be best.

Recently two cores with 6-mil tape have been obtained. Initial work indicates a marked superiority over 4-mil tape for high-frequency response, with somewhat poorer low-frequency response. Most transformers in this article use type 5340 S-4 cores; the 5340 refers to the physical size (0.810 in./o.d., 0.440 in./i.d., 0.195 in./thick); S-4 indicates the core material (4-mil Supermalloy).

In selecting the primary inductance an advantageous compromise

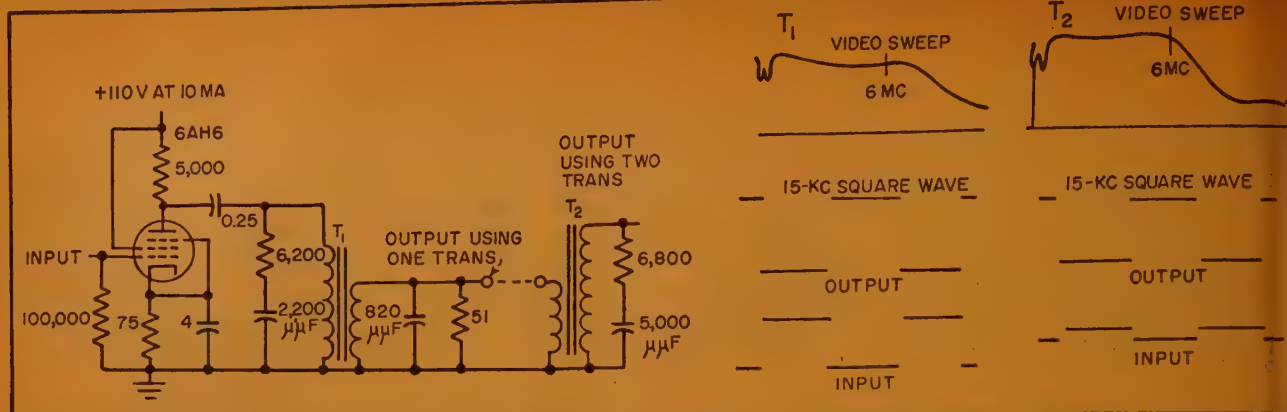


FIG. 5—Both T_1 and T_2 have 4-mil cores and 190-turn primaries; T_1 has 190-turn primary of No. 50 Formex wire and secondary of 20 turns of 0.002 by 0.070 in. copper; T_2 has 190-turn primary of No. 52 Formex and 44-turn secondary of 0.002 by 0.075 in. anodized aluminum. Video-sweep and square-wave responses are shown at right

is to allow approximately a 10-percent tilt in the response to a 15-kc square wave, thus necessitating fewer turns on the primary winding than if a more perfect low-frequency response is attempted. The fewer turns result in obtaining about a 50 percent greater turns ratio for the same high-frequency response.

The 15-kc square-wave tilt can be completely compensated at the cost of about 10-percent amplitude loss by placing a resistor in series with a capacitor across the primary; thus about 50-percent increase in gain is achieved at the expense of 10-percent loss. On this basis about 190 turns are required for the primary.

Figure 3 shows the sine-wave low-frequency response of such a transformer with a 4 to 1 turns ratio and terminated in 50 ohms. The response falls off more slowly than even a single R-C or R-L circuit would; this is caused by the peaking effect of the rising permeability as the frequency decreases. With this response, even though the amplitude does not start to fall until about 1 kc, there is enough phase shift to require compensation at 15 kc. The loss of low frequencies is due almost entirely to insufficient primary inductance. If the primary is driven from a lower impedance source, a much better low-frequency response can be obtained, confirming that the coupling in the transformer at low frequency is good.

Experimentally, it has been found advantageous to use wire at

least as small as No. 50 for the primary winding to have considerable space between adjacent turns and minimize distributed capacity. It is also important to have the uniformity of the winding virtually perfect. For example, a transformer made for a 6-mc response had one turn that crossed over the adjacent turn near the middle of the primary winding; the result was about a 5-mc response. The crossed turn was cut out and the two ends soldered together about $\frac{1}{2}$ inch from the core; this added about $\frac{1}{2}$ mc to the response, but did not bring the response to normal. Figure 4 shows the primary winding on a 4-mil core with 180 turns of No. 50 wire.

Experiments show that best results are obtained by winding all the way around the core. For example, a transformer that gave a 6-mc response with the winding on approximately 350 deg of the core only gave a 3.5-mc response with the same number of turns on 260 deg of the core.

Spacing Between Windings

Having wound the primary, the next step is to decide upon the spacing between primary and secondary. Good transformers have been made with spacing from as small as possible to about 0.050 inch. A wide spacing assures ability to ground either end of the secondary to select the desired polarity of signal output. A close spacing will require the same input and output polarity, but the transformer will operate equally well as a step-up or step-down transformer.

In general good results will be obtained with a moderate spacing as is obtained by winding the primary with a ribbon of Minnesota Mining and Manufacturing No. 1 rayon tape so there is a single layer on the outside edge while the inside will be about two layers of tape. Such a spacing usually allows the secondary polarity to be reversed while still operating well as a step-up transformer.

Though the secondary may be reversed with little change in frequency response, the primary requires one particular end to be grounded. If the other end of the primary is grounded, the frequency response is nearly cut in half independent of the polarity of the secondary.

The secondary is made from wire as large as is possible to use and still maintain a single layer on the inside of the toroid with the number of turns giving the proper turns ratio, usually about 4 to 1. It is wound uniformly over the primary, starting at one end of the primary and finishing at the other end. The direction or sense of the secondary winding should be the same as the primary.

Ribbon Wire

Instead of using round wire for the secondary, a considerable improvement in performance can be obtained by using anodized aluminum ribbon wire. This type of wire seems to produce a transformer with approximately twice the turns ratio and a bandwidth at least as wide in response as with round

ire and possibly better. Soldered connections to the aluminum are made by first copper plating the aluminum. The effect of the ribbon to decrease leakage inductance at high frequencies by providing a continuous shield completely covering the primary.

Figure 5 shows a circuit that may be used with the transformers to drive a low-impedance line. The waveforms illustrate the gain and frequency response. Using one transformer the gain from the grid of the tube to a 51-ohm load is 1.4. The gain would be higher except for the low valued plate resistor of the 6AH6. With a higher plate supply voltage, the plate resistor could be raised to increase the gain about 3 db. The circuit provides double termination for the cable since the transformer transforms the 2,770 ohms in the plate circuit (5,000 ohms in parallel with 6,200 ohms) to 52 ohms. Thus, a cable terminated at the receiving end with a 51-ohm resistor, or gain-control po-

tentiometer, will look back into 52 ohms at the sending end. The gain can be increased about four times by using a second transformer at the receiving end.

Frequency Compensation

High-frequency peaking is obtained with the 820- μ f capacitor across the 51-ohm resistor. Alternatively, an inductance can be placed in series with the 6,200-ohm resistor in the primary of T_1 .

Polarity can be reversed by reversing the low impedance winding of either transformer.

In addition to increasing the gain in driving a low impedance from the tube, the transformer also multiplies the current swing obtainable. The circuit shown in Fig. 5 will produce about 2.5 volts peak to peak across the 51 ohms, which is equivalent to a current swing of 50 ma. Total d-c current is less than 15 ma.

The resistor in series with the capacitor across the high impedance winding of each transformer

compensates the low frequency response. Without compensation, each transformer introduces about 15-percent tilt on a 15-kc square wave.

Figure 6 shows the results obtained with a 6-mil core. The winding would have given only one-half the bandwidth, if a 4-mil thick tape had been used.

Winding Machine

A device which has wound toroids with wire as small as No. 52 and maintained uniform spacing between turns is shown in a photograph. Since No. 52 wire is as small as is possible to obtain as yet, the minimum wire size the winder will handle is not known. To produce uniformity in the winding, tension is continually maintained on the wire so that the wire tends to stay where it is laid down. This is the principle feature of the winder. When the toroid with the primary winding is removed from the winding machine it is coated with a thin coating of rubber-base Bostick cement. The toroid is then wrapped with a strip of $\frac{1}{2}$ -inch wide rayon tape, starting at the same place as the primary winding and wound in the same sense and direction all the way around. The tape should be about a single thickness on the outer rim of the toroid.

The secondary is wound to start and finish at the same place the primary starts and finishes, with the turns in the same direction as the turns of the primary. If round wire is used for the secondary, it should be large enough so a close spaced single layer winding is produced on the inner side of the toroid. If ribbon wire is used, it should lap over itself on the inner side of the toroid to produce a nearly complete covering on the outside of the toroid.

Transformers of this type have been used as interstage-coupling devices in transistor video amplifiers. They are now finding further use in industrial-television equipment, both monochrome and color, where their advantages as line drivers are being utilized.

Credit is due E. K. Kurz for the design and construction of the winding machine without which these transformers would not have been developed.

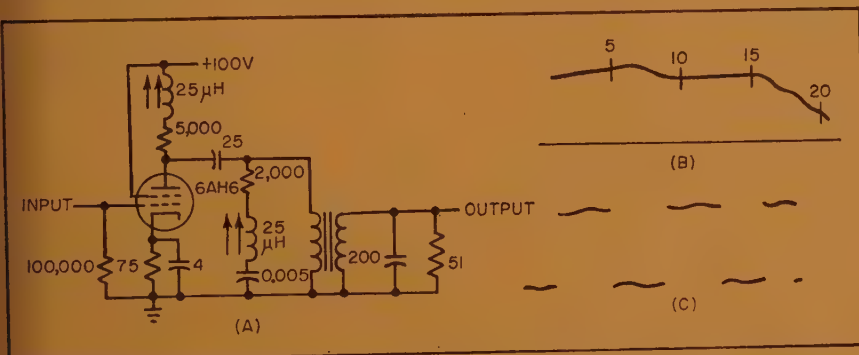
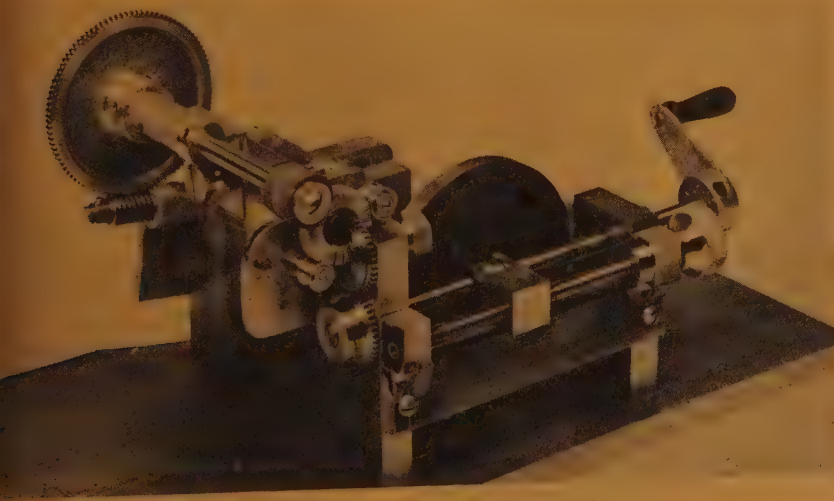


FIG. 6—Wide-band line driver (A) and response to video sweep (B) and 15-kc square wave (C). Transformer has 185-turn primary of No. 50 Formex and secondary of 40 turns of No. 24 eds wire



Machine winds toroid cores with No. 52 Formex insulated wire

HOW TO DESIGN COLPITT

By H. E. GRUEN

SUMMARY—Cut-and-try approach characteristic of crystal oscillator development can be avoided by using design method described. Oscillator output voltage can be predicted to better than 25 percent. Performance curves of output and crystal drive level allow performance prediction of circuits having a wide range of parameter values

DESIGN of practical crystal oscillator circuits has always involved a considerable amount of cut and try. Although a complete mathematical analysis is possible when all circuit characteristics are known the result is so complex that its application to a useful circuit is not practical.

Often this mathematical analysis is simplified by various assumptions to the point where little, if any, quantitative information results. The method of design outlined be-

low correlates the two approaches to the problem—a simplified analysis yielding qualitative information, supplemented by circuit performance measurements to provide quantitative information.

The measurements, obtained over a wide range of operating conditions, include such factors as frequency stability, output voltage and power and crystal drive level determined as a function of circuit component values and voltages.

Design data will be developed for

the Colpitts crystal oscillator and for the adaptation of this circuit to electron coupling.

In the circuit of Fig. 1A, the crystal operates at antiresonance with the total grid-to-ground capacitance. Crystal drive level, as well as the available output voltage, is a function of crystal and tube characteristics and operating voltages as well as the capacitance ratio C_3/C_2 .

For this oscillator the equivalent circuit of Fig. 1B is most con-

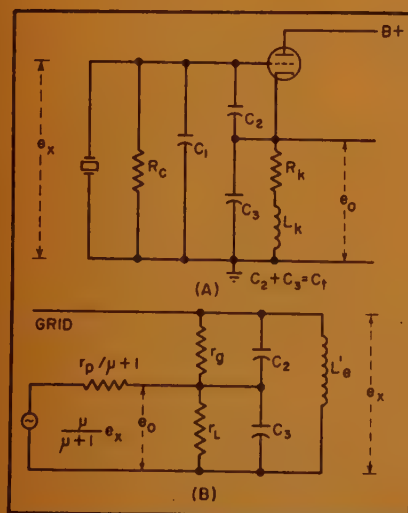
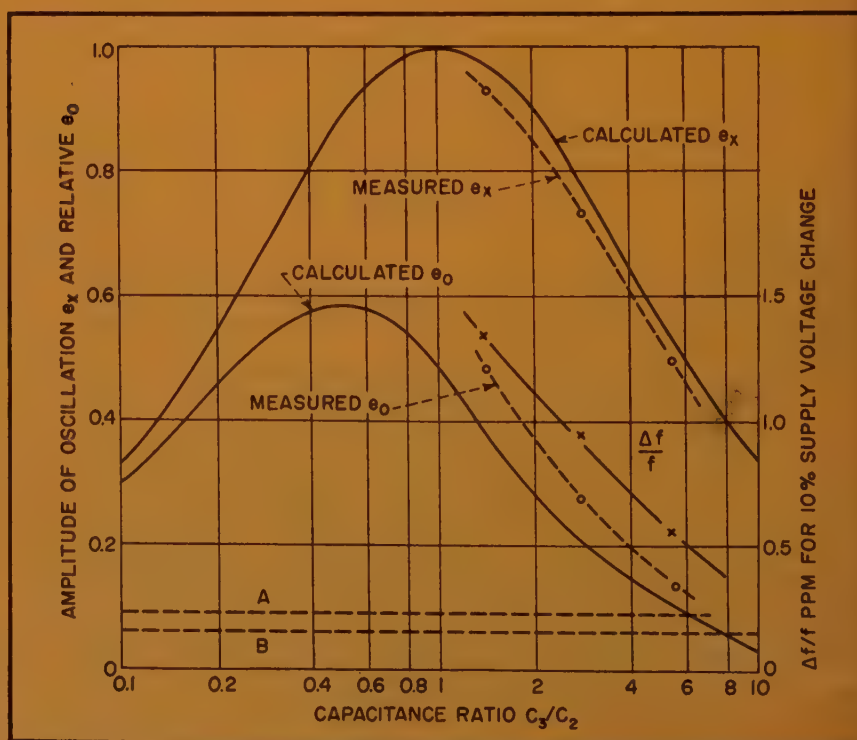


FIG. 1—Colpitts crystal oscillator circuit (A) and equivalent circuit (B) that serve as the basis of the design

FIG. 2—Circuit performance as a function of ratio of the capacitance between cathode and ground to grid and cathode



CRYSTAL OSCILLATORS

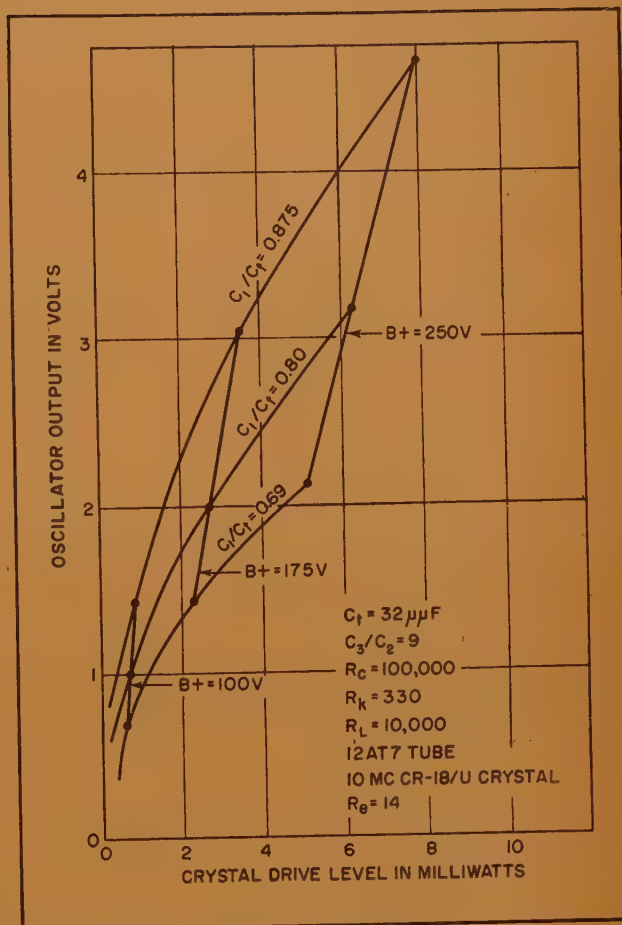
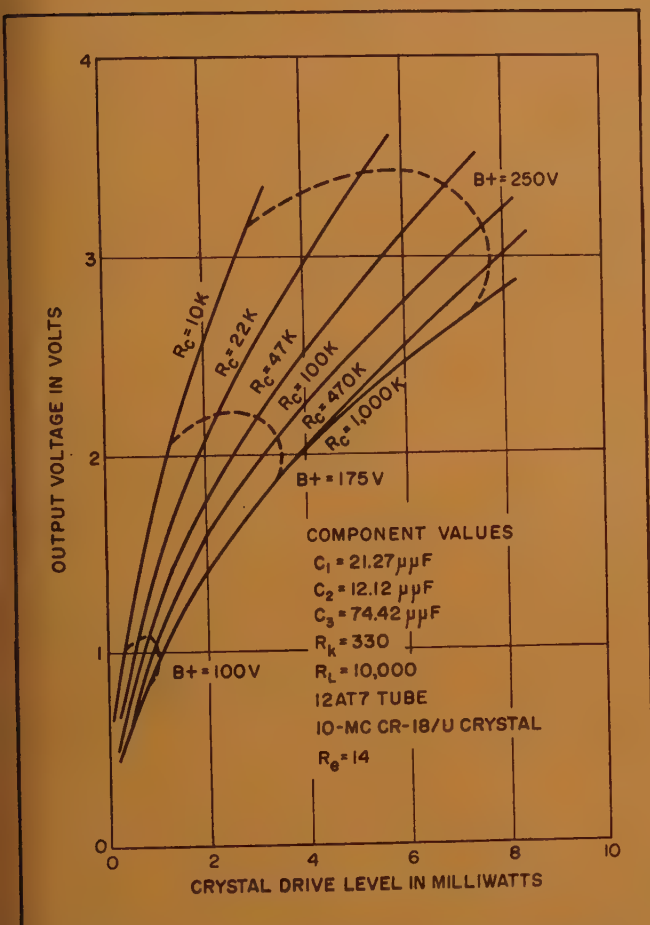


FIG. 3—Crystal oscillator output voltage vs crystal drive as a function of grid bias resistance

FIG. 4—Output voltage vs crystal drive as a function of C_1 connected between grid and ground

venient since the voltages of interest appear across the crystal and from cathode to ground. The value of L_k is chosen such that its reactance is several times that of C_s . It thus provides a d-c path from cathode to ground whose a-c impedance is sufficient to be neglected.

The grid circuit losses are represented by r_g and the crystal loss by r_L when C_1 is included as a part of the crystal network. The resistance r_L is the load on the generator when the grid loss r_g is neglected. Using this value of load impedance, the equation of conditions necessary for oscillation can be developed as follows

$$r_p = \frac{\mu P I N f(\omega r_g) f(C_1)}{(1 + N)^2}$$

where $N = C_s/C_2$

$PI = 1/(\omega^2 C_s^2 R_s) = \text{performance index of crystal}$

$$f(\omega r_g) = \frac{r_g \omega C_2}{[1 + (r_g \omega C_2)^2]^{1/2}} \text{ and}$$

$$f(C_1) = \left(1 + \left[\frac{(N + 1) \omega C_1 R_s}{1 - C_1/C_s}\right]^2\right)^{1/2}$$

The equation is satisfied when steady-state oscillations exist. The factors $f(\omega r_g)$ and $f(C_1)$ include the effects of circuit losses. The values of these expressions approach unity as the frequency increases and as R_s of the crystal decreases.

The resultant plot of the loss-free condition is shown in Fig. 2. The upper solid curve represents the amplitude of oscillation, or crystal voltage, and the lower curve the relative output voltage for this condition.

Figure 2 also shows the measured

performance of a 10-mc oscillator as compared to the loss-free condition. For the measurements shown the effective grid-to-ground capacitance of C_2 and C_s was held constant while their ratio was varied. This maintains a constant crystal load capacity C_1 .

Circuit Measurements

Because of the inherently large stray capacitance included in C_s , no measurements were made at ratios less than one. The curve marked $\Delta f/f$ shows the improvement in frequency stability as the capacitance ratio is increased. The horizontal lines A and B are used in the design examples.

The graph of Fig. 3 shows measured output voltage and crystal

drive level as a function of plate voltage for different values of grid bias resistance. This data taken at 10 mc shows increasing values of drive as the resistance increases, indicating the desirability of using small values of resistance if high output at low crystal drive is desired.

However, at lower frequencies oscillation may not start if R_g is too small. The choice of R_g is therefore dependent on the use to which the oscillator is to be put. These results were obtained at 10 mc. At lower frequencies a graph having the same scales would be obtained with larger values of R_g . For example, at 1 mc the line representing R_g equal to 100,000 ohms will be approximated by an R_g of 1 megohm.

In Fig. 4 are shown the results of varying C_1 , the grid-to-ground capacitance, while maintaining a fixed ratio of C_2/C_1 and a constant load capacitance. As C_1/C_2 becomes larger, the output increases greatly for moderate increases in drive level. Within the limits set by stray capacitance in C_1 and C_2 it is advisable to make C_1 as large as possible to obtain large output-to-drive ratios. However, for good stability C_2 should be padded to several times the stray capacitance.

Figure 5 indicates the results obtained by use of different tube types. Both triodes and pentodes of miniature and subminiature construction are included. A type 12AT7 was selected as the reference for obtaining the general circuit performance measurements.

Performance Curves

Circuit performance information is presented in a general form in Fig. 6. The oscillator output in volt-megacycles (rms output voltage times frequency in megacycles) and the crystal drive level are presented as a function of plate supply voltage. For a fixed supply voltage and a given frequency, a range of both output voltage and crystal drive is indicated. The exact values obtained depend on the resistance of the crystal used. The circuit and the range of resistance values used in determining the curve are shown

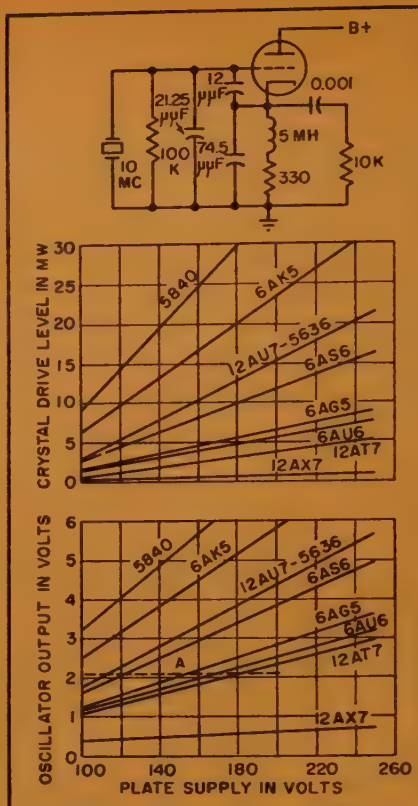


FIG. 5—Output voltage and crystal drive for a number of tubes used in the representative circuit (top)

on the figure.

As an example of the use of this curve, assume that an 8-mc oscillator having an output of 2 volts is required. The volt-megacycle product is 16 and from the curve the required plate voltage can be determined. In this case the required plate voltage will be in the range of 130 to 170 volts. Use of a 150-volt plate supply will yield an output of 2 volts plus or minus 15 percent. The resulting drive level will be from 1.5 to 4 milliwatts depending on crystal resistance.

At frequencies below 3 mc, higher values of grid and cathode bias resistance are required to insure proper starting and drive characteristics. Figure 7 is a generalized performance curve for the low frequency range. The applicable circuit is shown and use of the curve is the same as before.

Electron coupling is used in crystal oscillators as well as in conventional self-excited circuits. Advantages of the electron coupled arrangement include ease of fre-

quency multiplication, high output voltage to crystal drive ratio and frequency stability relatively independent of load variations. The circuit readily adapts itself to electron coupling since the plate operates at a-c ground potential.

The circuit diagram of the electron coupled oscillator appears in Fig. 8. The voltage of interest in determining circuit performance now becomes the screen voltage rather than the supply voltage. Characteristics of triode connected pentodes were determined and circuit performance data for several types are included in Fig. 5 for comparison.

The design of an electron coupled oscillator is taken from the curves just described using the pentode tube connected as a triode. When the performance of the triode circuit has been determined the plate output can be calculated as for a pentode amplifier based on effective values of transconductance and plate circuit impedance.

Excellent isolation of plate impedance variations can be accomplished by using a tube having a separate suppressor lead connected to a bypassed bias potential equal to the cathode bias. Output voltage, crystal voltage and frequency change as a function of plate load impedance for three circuit arrangements are shown in the curves of Fig. 9.

A 6AU6 tube was used, first with suppressor-to-cathode connection then as a tetrode with suppressor connected to plate and finally with the suppressor connected to a positive bias of five volts. The solid lines indicate the improved performance of the biased suppressor arrangement.

Design Method

The oscillator circuit shown in Fig. 6 was designed to operate over the frequency range of 2.85 to 10 mc with large output voltage to crystal drive ratios. The corresponding circuit and performance characteristics for the 1 to 2.85 mc frequency range are shown in Fig. 7. These performance characteristics can be used directly in predicting

operation of the standard circuits and can also be used in conjunction with other figures given here to design additional circuits meeting specific performance requirements.

Use of this design method is explained in the example below. The steps necessary if the reference circuit of Fig. 6 meets the given requirements are outlined in detail as shown below.

It is required that the circuit have a frequency of 7 mc; voltage output of 2.25 v rms across a 5,000-ohm load, frequency tolerance of ± 0.006 percent and power supply voltage of 150 v.

The crystal unit to be selected should be a high-quality antiresonant unit of the desired frequency. To obtain proper operation of the crystal the circuit is designed to provide the required load capacitance, which is the total grid-to-ground capacitance of the circuit. The circuits given here are for use with military type crystal units for which a load capacitance of 32 μf is required.

Military type crystal units that can be used in these circuits include the CR-18/U, CR-27/U and CR-36/U. The CR-18/U is a non-temperature-controlled unit, while the CR-27/U and CR-36/U are designed to operate at 75 and 85 C respectively. In this case a CR-18/U crystal unit will meet the requirements provided that frequency changes produced by the oscillator are less than ± 0.001 per cent (the difference between the ± 0.006 -percent frequency tolerance requirement for the circuit and the ± 0.005 -percent tolerance of the CR-18/U over the operating temperature range).

Reference Stability

The stability characteristics of the reference circuit are such that nominal component value changes produce frequency shifts in the order of one or two parts per million. Plate supply changes of ± 10 percent produce corresponding frequency variations of less than two

parts per million. Thus the frequency tolerance of the circuit is well within the ± 0.001 -percent (10 parts per million) requirement.

Having determined that crystal unit CR-18/U is the proper choice, other characteristics of the unit such as recommended drive level (10 milliwatts), effective resistance and other crystal characteristics should be kept in mind. Detailed information on all military type crystal units is contained in military specification MIL-C-3098B.

In this example the output requirement of 2.25 v rms at a frequency of 2 mc yields a volt-megacycle product of 15.75. Plate voltage necessary for obtaining the desired performance from the reference circuit is determined in Fig. 6. From 15.75 on the volt-megacycle scale a horizontal line is projected to intersect the center dotted curve. This is shown as line A of Fig. 6. A plate voltage of nearly 150 v is indicated. Line B projected vertically downward to the drive level scale denotes a drive

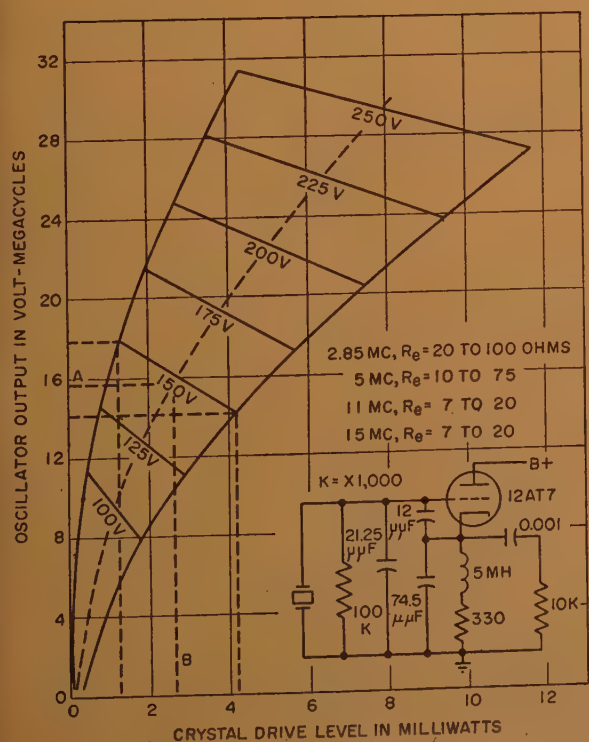


FIG. 6—Performance characteristics for high frequencies

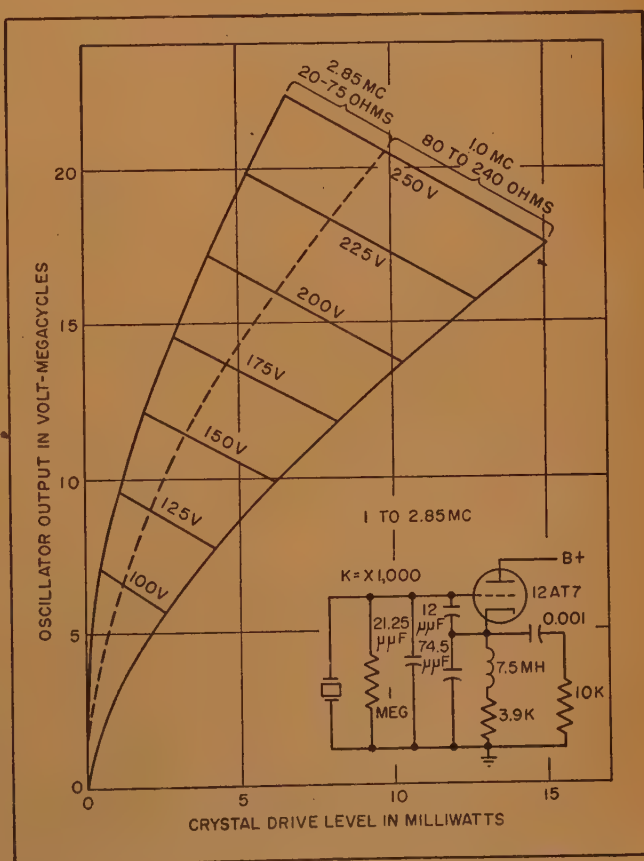


FIG. 7—Performance characteristics for low frequencies

REFLECTION POINT AND

By Z. PRIHAR

SUMMARY—Determination of propagation losses over complex paths requires a knowledge of the reflection point that is seldom midway between antenna and an obstruction contributing to knife-edge diffraction. Nomograms give distance and angle with little additional computation

ANGLE and point of reflection of radio waves are required information when calculating propagation losses in four-path propagation, as by knife-edge diffraction.

If no logical reflection point is apparent, it is found by choosing a distance at which the angles of incidence and reflection from the tangent plane are equal. This is done by a trial and error method that is sometimes laborious and time-consuming.

A direct analytical method is suggested below. Nomograms give a direct reading of the distance and angle with little additional computation.

Referring to Fig. 1, the following particulars are usually known: antenna height h_1 in feet; obstruction height h_2 in feet; and distance d from h_1 to h_2 in miles.

From Fig. 1,

$$\begin{aligned} \text{effective height } h_1' &= h_1 - p_1 \\ \text{effective height } h_2' &= h_2 - p_2 \end{aligned}$$

If a = earth's radius (3,963 miles)

$$(a + p_1)^2 - a^2 = d_1^2$$

since

$$p_1 \ll 2a, \quad p_1 = d_1^2/2a \quad (1)$$

Denoting $R = Ka$ = effective earth radius, for $K = 4/3$,

$$\begin{aligned} p_1 &= d_1^2/2R = \\ 5,280d_1^2/(2.4/3.963) &= d_1^2/2 \quad (2) \end{aligned}$$

where p_1 is expressed in feet and d_1 in miles.

If d_1 is known, the effective height h_1' will be given by

$$h_1' = h_1 - d_1^2/2 \quad (3)$$

and

$$h_2' = h_2 - d_2^2/2 \quad (4)$$

where

$$d_2 = d - d_1$$

At the point of reflection, since angle of incidence must

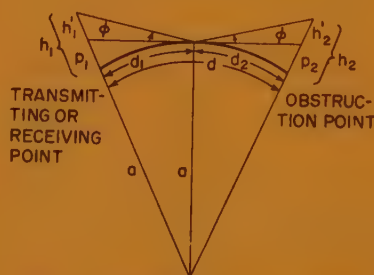


FIG. 1—Geometry of path between station and obstruction

be equal to the angle of reflection,

$$h_1'/d_1 = h_2'/d_2 \quad (5)$$

Substituting Eq. 3 and 4 in Eq. 5 and rearranging results in the following implicit expression for d_1 for any value of K

$$\begin{aligned} d_1^3 - 3dd_1^2/2 + \\ d_1(d^2/2 - h_1Ka - h_2Ka) + dh_1Ka = 0 \quad (6) \end{aligned}$$

and for d and d_1 in miles, h_1 and h_2 in feet and for any K , Eq. 6 becomes

$$\begin{aligned} d_1^3 - 3dd_1^2/2 + d_1(d^2/2 - \\ 3h_1K/4 - 3h_2K/4) + 3dh_1K/4 = 0 \quad (7) \end{aligned}$$

and for $K = 4/3$

$$d_1^3 - 3dd_1^2/2 + d_1(d^2/2 - h_1 - h_2) + dh_1 = 0 \quad (8)$$

It will be found that Newton's approximation method will offer the simplest and quickest way of finding the value of d_1 . If d_1 is chosen arbitrarily for which Eq. 8 is $f(d_1) \neq 0$, an approximate solution will be obtained with d_1' when

$$d_1' = d_1 - f(d_1)/f'(d_1) \quad (9)$$

d_1 is the arbitrarily chosen value and $f'(d_1)$ the first derivative of Eq. 8

$$f'(d_1) = 3d_1^2 - 3dd_1 + (d^2/2 - h_1 - h_2) \quad (10)$$

A still better approximation will be obtained by repeating the calculation of Eq. 9 with the newly found value d_1' when

$$d_1'' = d_1' - f(d_1')/f'(d_1')$$

The following example illustrates the application of the above method. Let $h_1 = 100$ feet, $h_2 = 2,000$ feet, $d = 60$ miles and $K = 4/3$. Assuming an arbitrary value of $d_1 = 10$ miles, Eq. 8 yields for $d_1 = 10$ miles

$$f(d_1) = f(10) = -5,000$$

and according to Eq. 10

$$f'(d_1) = f'(10) = -1,800$$

$$f(d_1)/f'(d_1) = 5,000/1,800 = 2.783$$

hence

$$\begin{aligned} d_1' &= 10 - 2.783 \\ &= 7.217 \quad (\text{say } 7.22) \end{aligned}$$

ANGLE NOMOGRAPHS

$$t' = (d^2/4 + h_1 + h_2) / s^2$$

$$q' = (h_2 - h_1) / ds^{3/2}$$

$$d_1 = w + d/2$$

$$w = sw'$$

$$s = 20 \text{ (SCALE)}$$

ALL d's IN MILES AND

ALL h's IN FEET

STEPS

1. DETERMINE t' AND q'
2. READ OFF CORRESPONDING w' ON HORIZONTAL LINE
3. DETERMINE $w = 20w'$ AND d_1
4. DETERMINE $d_2 = d - d_1$
5. DETERMINE

$$h'_1 = h_1 - d_1^2/2$$

$$h'_2 = h_2 - d_2^2/2$$

6. CHECK FOR

$$h'_1/d_1 = h'_2/d_2$$

7. READ OFF ANGLE OF REFLECTION FROM FIG. 3

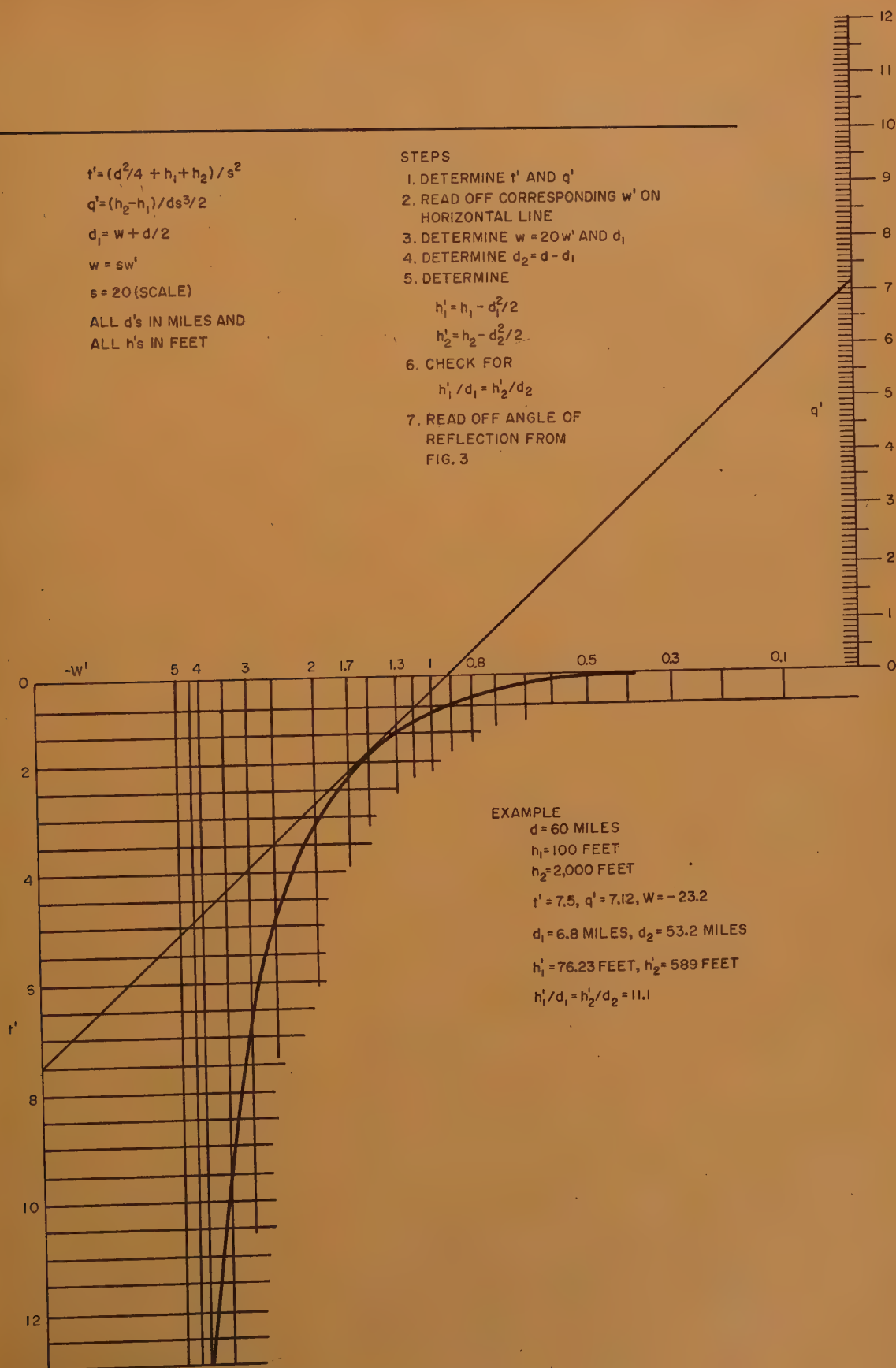


Fig. 2—Intermediate nomogram gives distance data and tangent value

Reflection Point and Angle Nomographs (Continued)

Repeating the same process for $d_1' = 7.22$

$$f(d_1') = f(7.22) = -481.3$$

$$f'(d_1') = f'(7.22) = -1,443.2$$

$$f(d_1')/f'(d_1') = 481.3/1,443.2 = 0.334$$

$$d_1'' = 7.22 - 0.334 = 6.886 \text{ miles}$$

The actual value for d_1 in the above example was 6.88 miles.

Having determined d_1 all the other values can now be deduced.

$$d_2 = d - d_1 = 60 - 6.886 = 53.114 \text{ miles}$$

$$h_1' = h_1 - d_1^2/2 = 76.234 \text{ feet}$$

$$h_2' = h_2 - d_2^2/2 = 589.8 \text{ feet}$$

$$\text{reflection angle} = \text{incident angle}$$

$$= \phi = \tan^{-1} h_1'/d_1 = \tan^{-1} h_2'/d_2$$

From above,

$$h_1'/d_1 = 11.069; \quad h_2'/d_2 = 11.05$$

The numerical value of $f(d_1)/f'(d_1)$ for any arbitrarily chosen value of d_1 will offer some indication how far d_1 is off its correct value.

for $f(d_1)/f'(d_1) > 1$ the difference is substantial

for $f(d_1)/f'(d_1) < 1$ the difference is small

A reasonably approximate value of d_1 is given by

$$d_1 = d/2(h_2/h_1)^{1/3}$$

For instance, for the above numerical example, with $d = 60$ miles, $h_2 = 2,000$ feet, $h_1 = 100$ feet

$$d_1 = 60/2 \times 4.472 = 6.75$$

The actual value, as found above, was 6.886.

$$\text{Let } d_1 = w + d/2$$

then Eq. 8 will have the form

$$-w^2 - tw - q = 0$$

where

$$t = (d^2/4 + h_1 + h_2)$$

and

$$q = (h_2 - h_1)d/2$$

where d is expressed in miles and h in feet. Figure 2 will give the value of w for any given values of t and q . To keep the values of q and t within the limits of the nomogram a reducing scale $s = 20$ was used. With this scale, the relationships shown on Fig. 2 hold true.

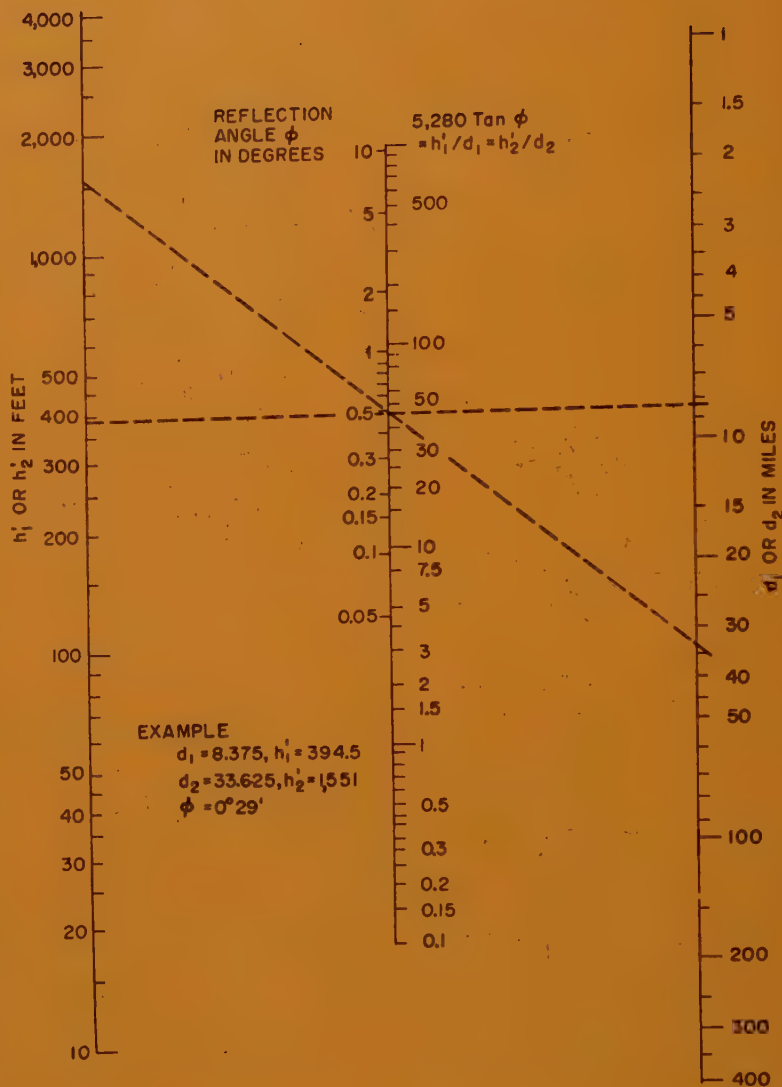


FIG. 3—Chart shows tangent value for four-thirds earth and reflection angle

$$t' = (d^2/4 + h_1 + h_2)s^2$$

$$q' = (h_2 - h_1)s^2d/2$$

and

$$w' = sw$$

For the numerical example, $d = 60$ miles, $h_1 = 100$ feet and $h_2 = 2,000$ feet,

$$t = 3,000, \quad t' = 7.5$$

$$q = 57,000, \quad q' = 7.12$$

$$w = -1.16, \quad w' = -23.2$$

and

$$d_1 = -23.2 + 30 = 6.8$$

For any K value, other than $K = 4/3$,

$$t' = (d^2/4 + 0.75Kh_1 + 0.75Kh_2)s^2$$

and

$$q' = (h_2 - h_1)0.75Kds^2$$

where d and h are expressed in miles and feet respectively.

Having determined the value of d_1 from Fig. 2, the value of d_2 can then be deduced from $d_2 = d - d_1$ and h_1' and h_2' from the relations given by Eq. 3 and 4 respectively.

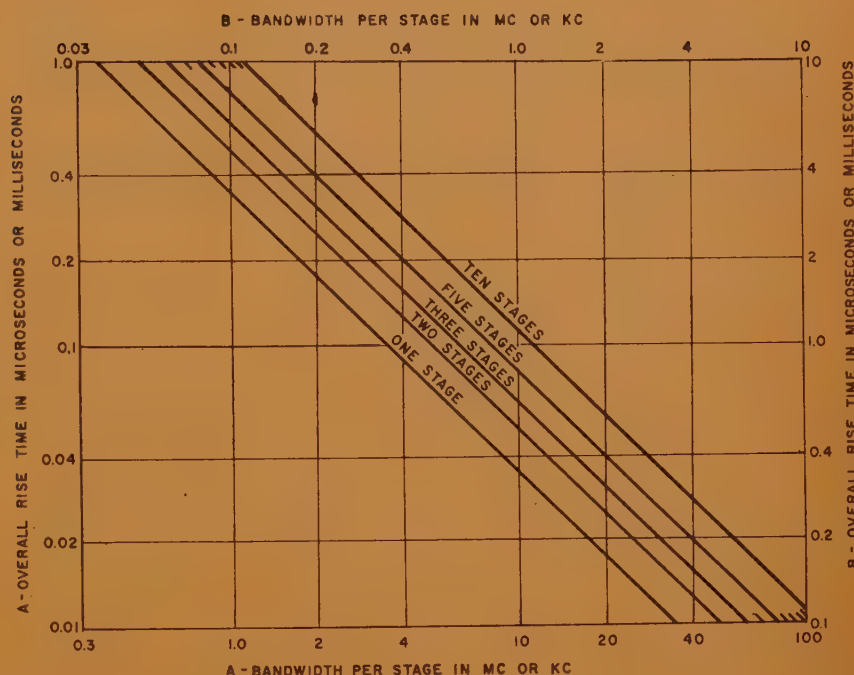
Given d_1 and h_1' and d_2 and h_2' , the angle of reflection corresponding to

$$h_1'/d_1 = h_2'/d_2$$

can then be obtained from Fig. 3 as illustrated by the example given.

BANDWIDTH-RISE TIME CHART

By M. DAVID PRINCE



SUMMARY—Straight-line chart relates bandwidth and rise time over wide frequency range for 2 to 10 pulse-amplifier stages in cascade. Overall rise time of amplifier can also be determined

THE CHART presented here solves graphically two equations often used in pulse-amplifier design. The first applies to a single stage with less than 5-percent overshoot and relates the rise time to the bandwidth by the approximate empirical formula: $(\text{Rise Time}) \times (\text{Bandwidth}) = 0.35$.

This equation also applies to an amplifier containing more than one stage, in which case the rise time and the bandwidth both apply for the overall amplifier.

The second equation relates the rise time of an amplifier consisting of a number of identical stages in cascade with the rise time of each stage. This relation, which applies if the overshoot of each stage is less than 3 percent, is $\text{Overall rise time} = (\text{Rise time per stage}) \times \sqrt{\text{Number of stages}}$.

Care must be taken to use the A scales together or the B scales together, and to use microseconds and megacycles together or milliseconds and kilocycles together, as noted on the graph.

Examples

Three examples illustrate several applications of the chart.

(1) The bandwidth of a single stage is 4 mc. What is the rise time of five identical stages connected in cascade?

Enter chart at 4-mc bandwidth per stage. Go up to five-stages line, then over to rise time in microseconds and read 0.2 microsecond.

(2) The rise time of one stage is 10 microseconds. What is the rise time of ten stages in cascade.

Enter chart with rise time at 0.01 milliseconds. Intersection with one-stage line gives an

equivalent bandwidth for a single stage of 35 kc. Move along 35-kc line to ten-stages line. Read on A-scale at 0.032 millisecond or 32 microseconds the rise time of ten stages in cascade.

(3) An overall effective bandwidth of 3.5 mc is required in a system. How many cascaded isolation amplifiers of 6-mc bandwidth can be used?

Enter the bandwidth scale at 3.5 mc and read up to the one-stage line. On the rise-time scale, the 3.5-mc overall bandwidth corresponds to a 0.1-microsecond overall rise time. Now, read over on the 0.1-microsecond rise-time line to the intersection with the 6-mc bandwidth line. This point of intersection indicates that three amplifiers can be connected in cascade without degrading the bandwidth beyond 3.5 mc.

PROOF OF PERFORMANCE

SUMMARY—Steps required to check tv transmitters for station license or renewal under FCC proof-of-performance regulations are outlined. Frequency spectrum, field strength, visual and aural harmonics, frequency response and noise test procedures are given along with results obtained by one station. Other sources of FCC information are also given

By JESSE R. SEXTON

NEW TV STATIONS filing for a station license after Oct. 1, 1954, as well as all stations filing for renewal of license after that date, must comply with new FCC proof-of-performance regulations.

Letter of Information

The commission's letter of information relating to these regulations contains six parts.

The first three, deal with the performance requirements for color of section 3.687.

It is assumed that the station does not transmit color programs in color, and that its transmitter has been modified to suppress the frequencies indicated in the letter,

either by the manufacturer or by installing a kit supplied by the manufacturer. All manufacturers, without exception, make this modification kit available to their customers hence complying with this portion of the requirements is relatively simple.

Part 4 of the letter deals with stations transmitting color programs in color and is not concerned with proof-of-performance tests for stations transmitting monochrome signals.

Part 5 requires data showing overall attenuation versus modulating frequency of demodulated signal for modulating frequencies from 0 to 4.75 mc.

Further information says the amplitude of the 0.2-mc sideband must be used as a reference point for comparison.

Test Procedure

The equipment is set up as shown in Fig. 1. The test is made with the demodulator probe placed in the coaxial line to the antenna after the harmonic filter and with the transmitter operating into a dummy load. The demodulator is placed on crystal output.

To determine the various levels of the modulating frequencies the screen of a Tektronix oscilloscope must be calibrated in db. This is done by introducing a video voltage with a bandwidth of 0-5 mc from a Markasweep generator into the transmitter video input.

The transmitter is then fully modulated and the amplitude of the signal on the oscilloscope adjusted to a convenient level.

The signal generator is set at 0.2 mc and the marker pip located. The pip will be close to the carrier frequency and near the point of maximum amplitude of the oscilloscope waveform. This point is designated 0 db and a mark is placed on the screen. The sweep generator attenuators are adjusted to add 10 db to the circuit. The

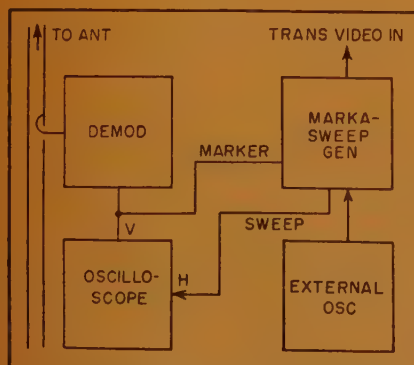


FIG. 1—Setup to obtain attenuation against frequency curves and to measure upper and lower sideband field strength

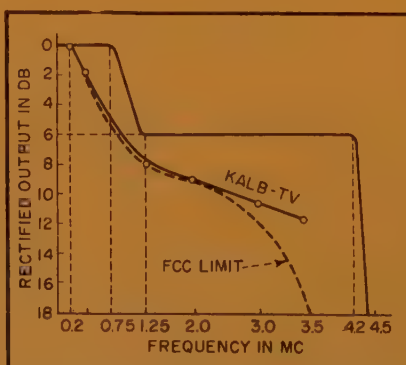


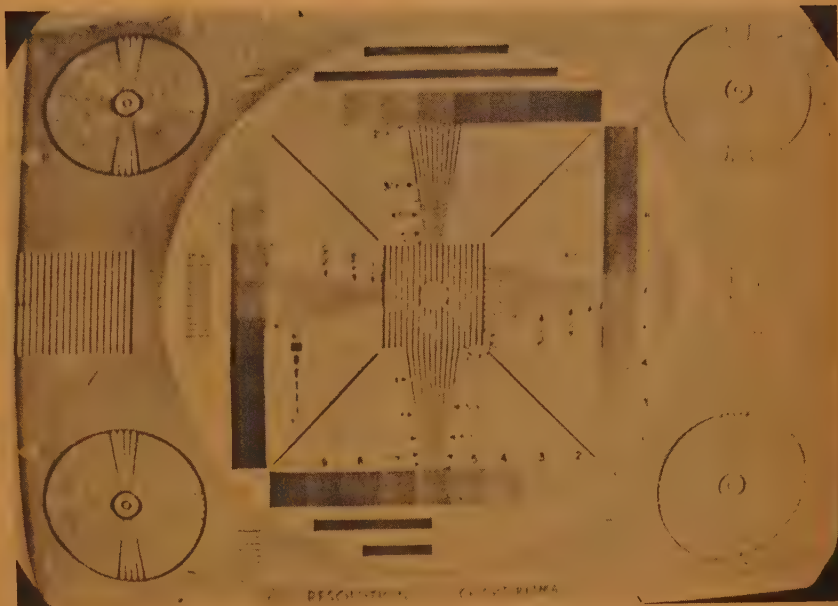
FIG. 2—Curve obtained using setup of Fig. 1 to determine attenuation against frequency for the upper sideband

OR TV BROADCASTING



Waveform exhibit taken from face of calibration monitor

Test pattern exhibit taken from the screen



level on the scope will drop and the new level is marked—10 db. Additional steps of attenuation are introduced and each new level is marked with the appropriate db reading until the signal is completely attenuated.

The amplitude of the 0.2-mc pip is designated 0 db. Additional frequencies of 0.5, 1.25, 2.00, 3.00 and 3.5 mc are fed into the sweep generator from the signal generator.

Curves

The db levels of the various frequencies are located along the sloping shoulder of the upper sideband and plotted on a curve as seen in Fig. 2.

None of the points should drop below the FCC limit indicated on the curve, for the rules say: "The overall attenuation characteristics of the transmitter, measured in the

antenna transmission line after the vestigial sideband filter (if used), shall not be greater than the following amounts below the ideal demodulated curve: 2 db at 0.5 mc, 2 db at 1.25 mc, 3 db at 2.0 mc, 6 db at 3.0 mc and 12 db at 3.5 mc." Should any of these values fall below the limit, it will be necessary to improve the overall linearity of the transmitter.

Field Strength

The second paragraph of Part 5 says: "Field strength or voltage of lower sideband for modulating frequencies of 200 kc to 5 mc and of the upper sideband for modulating frequencies of 200 kc to 8 mc."

Further, information from section 3.687i not included in the above says: "All emissions removed in frequency in excess of 3 mc above or below the respective chan-

nel edge shall be attenuated no less than 60 db below the visual transmitted power (or not less than 48 db below the 0.2-mc reference point.)"

In addition, according to section 3.687 (a) (2), the respective channel edges at 1.25 mc for the lower sideband and 4.75 mc for the upper sideband must be attenuated no less than 20 db.

To measure the field strength of the upper sideband, the equipment is set up as shown in Fig. 1. Since levels must be measured 3 db above and below the respective channel edges, a video voltage 0 to 10-mc wide is used to modulate the transmitter.

Sideband

The 0.2-mc sideband is located by introducing a 0.2-mc signal from the signal generator, and is designated 0 db. Additional frequencies from the external oscillator are then fed into the sweep generator and their levels recorded, according to the actual measurements shown in Table I.

The transmitter is swept with a 20-mc-wide video voltage to be sure there is nothing beyond the 10-mc range. In this case there was no measurable signal beyond the 9.0-mc point. The various levels are

AND AS TO COLOR . . .

The information in this article shows how the holder of a monochrome tv broadcast station temporary authorization can obtain a full-fledged station license. Under present rules, no further proof-of-performance is required if station later decides to broadcast color.

It will be necessary, however, to adjust the transmitting equipment for color in conformance with FCC regulations. The tests to insure proper color performance have been described earlier in issues of *ELECTRONICS*.

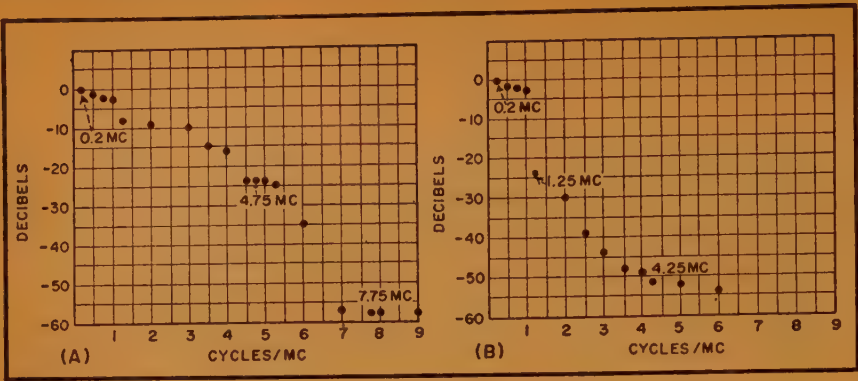


FIG. 3—Curves show upper (A) and lower (B) sideband field strength

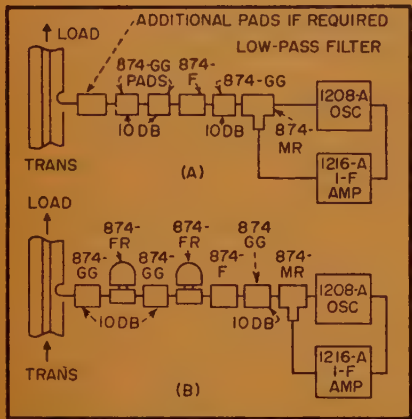


FIG. 4—Setup required to measure carrier fundamental (A) and harmonics (B)

then plotted on a curve, db levels versus frequency as shown in Fig. 3A.

The same procedure is used to measure the lower sideband. The results are shown in Fig. 3B. Since tv transmitters are single sideband, the lower sideband should fall off sharply between 0.75 and 1.25 mc.

Harmonics

The equipment needed to measure both visual and aural r-f harmonics includes the following General Ra-

dio types or their equivalents: oscillator 1215-B (50-250 mc), for Channels 2-6; oscillator 1209-B; 874-F low-pass filters; 874-GG loss pads; 1216-A i-f amplifier; 874-MR coaxial element; and 874-FR rejection filters.

Different model numbers of this equipment are necessary for Channels 7-13 and for the uhf channels.

The equipment is set up as shown in Fig. 4. The level of the fundamental carrier is first measured and entered in the appropriate column in the data sheet, a sample of which is shown in Table II. The levels of the various harmonics from the second through the tenth are then taken and entered. Occasionally trouble may be encountered in differentiating between the true harmonic and responses generated in the measuring equipment, especially as the higher frequencies are reached. Questions of this nature can generally be resolved by disconnecting the equipment from the transmission line and noting whether the response disappears or remains.

The actual frequencies of each

Table I—External Oscillator Frequencies

Mc	Db Level
0.2	0
0.5	-1
0.75	-2
1.0	-2.5
1.25	-8
2.0	-9
3.0	-10
3.5	-15
4.0	-16
4.5	-25
4.75	-25
5.0	-25
5.3	-26
6.0	-35
7.0	-57
8.0	-58

harmonic are given on the data sheet for each channel. The corrective factors for each harmonic, as shown on the data sheet, are used to arrive at the true db levels. The level of the fundamental carrier is then assumed to equal 0 db and is plotted along with the levels of the harmonics below the fundamental level as computed from the data sheet. Figure 5 shows plots for both aural and visual carriers.

When the measurements are taken, the transmitter should be at full power output and operating into a dummy load. Also, the measurements must be made with the probe placed in the transmission line after the harmonic filter. Each harmonic must be a minimum of 60 db below the level of the fundamental to comply with the requirements.

Photographs

Further requirements concerning the visual section of the transmitter include taking photographs of a waveform and test pattern. The photograph submitted as a waveform exhibit was taken from the face of the calibration monitor, the waveform oscilloscope being driven from the demodulator and was that of a standard test pattern. In the exhibit it is necessary that the setup interval be shown plainly to be within 2½ percent of the value and 7½ percent set by the commission.

The photograph of the test pattern was taken from the screen of the calibration monitor. It is permissible to use an ordinary home

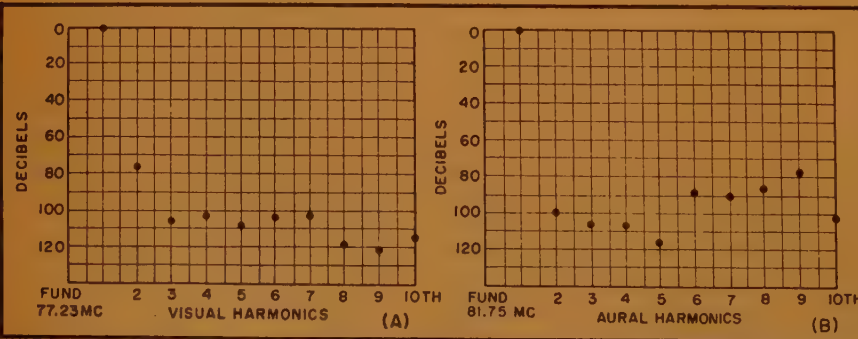


FIG. 5—Plots show level of specific visual harmonics (A) and aural harmonics (B)

v receiver if the picture shows adequate detail. Requirements are that it show at least 350 lines of resolution and 5 shades of gray.

Aural Tests

For the frequency-response curve, the system must be measured from the studio microphone input to the transmitter output over a band of 50 to 15,000 cps, excluding any limiting amplifiers but including preemphasis. Each point must fall between the limits shown in Fig. 6 and Appendix 3, Fig. 8, Part 3 Rules and Regulations.

To make this test, the equipment is set up as shown in Fig. 7. A loss

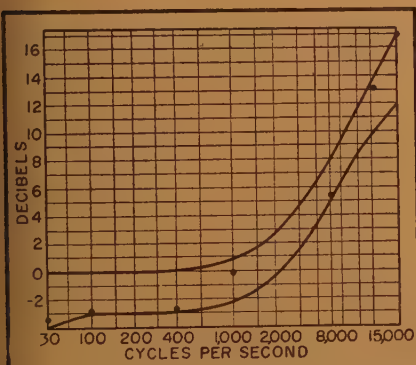


FIG. 6—Limits for frequency response are shown as standard preemphasis curve at top and FCC limit at bottom with specific points obtained between

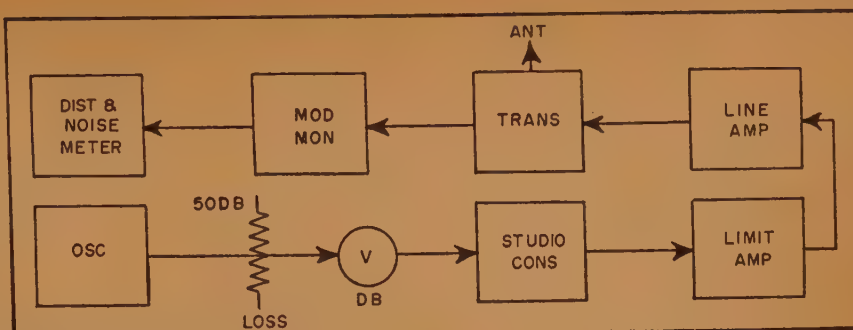


Fig. 7—Setup required to make aural measurements

pad is introduced between the oscillator and microphone input to lower the output of the oscillator approximately 50 db, depending on the type microphone and preamplifier used. The pad should match the impedance of the microphone preamplifier input and the output of the oscillator. It should be made of noninductive resistors and the capacitance between resistors and between input and output leads should be kept as low as possible since small capacitances at higher audio frequencies can result in incorrect readings.

The db meter should be large and have a scale showing at least -18 to $+4$ db. Since preemphasis is employed and, to comply with the regulations, the transmitter must

be kept at 100 per cent modulation for each reading, it is necessary that the input values not output values be read and plotted. If the input level were maintained at a constant value for each frequency, as is generally done in making amplitude-modulation tests, the output level, instead of remaining at 100-percent modulation, would vary over a wide range owing to the preemphasis.

Frequency Response

A signal of 50 cps is introduced into the microphone input from the oscillator. All gains are set at normal, and any program limiters or compressing devices are removed from the circuit. The oscillator level is adjusted so that the trans-

Table II—Sample Harmonic Measurement Date Sheet

Harmonic	Freq	Set LO	Nearest Spurious Resp-mc	Level A $A_s + A_m$ db	Pads Removed db	Corr for Coupling Loup-db	Corr for Filter db	Level $A\theta$ (A + Corr) db	Harmonic Level $A\theta$ (Fund) $A\theta$ (Harm)
Fund Filt Out	77.25	107.25		70+8.4		0	0	78.4	
Fund Filt In	"	"	-6.4, +17.25	3+5.3		0	0	8.3	
2nd	154.5	184.5	+17.25	6.0		-6	+2	+2.0	76.4
3rd	231.75	261.75*	-6.4, +17.25	2.7	-20db	-9	0	-26.3	104.7
4th	309.0	339.0	+17.25	4.6	-20db	-12	+3.5	-23.9	102.3
5th	386.25	416.25	+17.25	3.0	-20db	-14	+1.5	-29.5	107.9
6th	463.5	493.5	+17.25	3+7.6	-20bd	-15.6	0	-25.0	103.4
7th	540.75	570.75*	-6.4, +17.25	3+7.5	-20db	-16.9	+2.5	-23.9	102.3
8th	618.0	648.0*	-6.4, +17.25	4.4	-30db	-18.1	+3.5	-40.2	118.6
9th	695.25	725.25	+17.25	3.9	-30db	-19.1	+3.0	-42.2	120.6
10th	772.5	802.5	+17.25	3+9.2	-30db	-20	+1.5	-36.7	115.1

*A small spurious response may be found 6.4 mc below the true local oscillator frequency. Set the local oscillator to the higher of the two close responses.

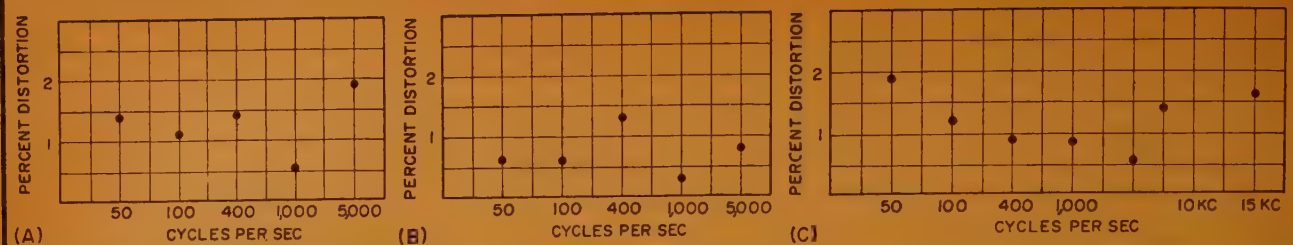


FIG. 8—Plots show distortion at 25 (A), 50 (B) and 100-percent modulation (C) as measured at 100-percent modulation

mitter modulation monitor reads exactly 100 percent.

The signal input meter reading will fall between 0 and +4 db. This value is carefully read and recorded. Without changing gain control settings other than oscillator level, frequencies of 100, 400, 1,000, 5,000, 10,000 and 15,000 cps are fed into the system and the level read on the input meter for each frequency. At each frequency the transmitter should be returned to 100-percent modulation.

At 15,000 cps, the input level reading will have dropped off to -16 to -20 db for 100-percent modulation. Since the various input signal levels were read rather than output, the data represents an image of the output. A true curve is obtained by changing the polarity sign of each reading. The frequency response curve thus obtained and must fall between the upper and lower limits of the FCC curve.

There is nothing to prevent shifting the entire curve up or down if doing so will fit it between the limits. For example, if the 50-cps reading is +1 db and the 15,000-cps level falls outside the upper limit at +18 db, the entire curve may be moved downward 1½ db thereby bringing the 15,000-cps

reading well within the upper limit while still keeping the 50-cps reading within the lower limit. If the curve will not fit between the limits of the standard curve, then the frequency response of the system is not satisfactory and must be improved.

Distortion

Distortion must be measured at 100-percent modulation for a frequency band of 50 to 15,000 cps and at 50-percent and 25-percent modulation for a frequency band of 50 to 5000 cps. The distortion levels must not rise above the following values: 50 to 100 cps 3.5 percent; 100 to 7,500 cps 2.5 percent and 7,500 to 15,000 cps 3.0 percent.

The test set up is shown in Fig. 7. A signal of 50 cps from the oscillator is fed into the microphone input. With all gains set at normal, the oscillator input level is adjusted for a 100-percent reading on the modulation monitor. The amount of distortion is read from the distortion and noise meter and recorded. For 100-percent modulation this is repeated for frequencies of 100, 400, 1,000, 5,000, 7,500, 10,000, and 15,000 cycles per second. For 50 percent and 25 percent modulation, frequencies of 50, 100, 400, 1000, and 5,000 cycles are used. The results are shown in Fig. 8.

Noise

In a frequency modulated transmitter, there are two inherent types of noise—that which modulates the carrier frequency and that which modulates the carrier amplitude. Both must be measured. The f-m noise level, in the band of 50 to 15,000 cps, must be at least -55 db below 100-percent modulation. The amplitude noise level

must be down -50 db below 100 percent modulation. Measuring the f-m noise level is relatively simple. The a-m noise level presents considerably more of a problem.

To measure the f-m noise level the video transmitter is shut down, since as yet the commission has not taken into consideration noise that might be introduced into the aural section from the visual portion. The oscillator output is introduced into the microphone input through the loss pad. With all gains set at normal and no limiting nor compression used, a frequency of 400 cycles is fed into the system and the modulation brought to 100 percent by the oscillator gain control. The oscillator signal is removed and the noise level read directly from the distortion and noise meter. This is repeated for a signal of 1,000 cps.

At present there is no equipment on the market to measure the a-m noise level of an f-m transmitter. Figure 9 shows a schematic of the method recommended by RCA for their f-m transmitters. An r-f voltage from the transmitter is introduced at the circuit input.

The amplitude of the rectified r-f is adjusted by the potentiometer until a reading of approximately 4 v is obtained on the voltmeter, with the switch in the r-f position. The switch is then placed in the a-c position, and the a-c amplitude adjusted until it is exactly the same as the rectified r-f reading on the voltmeter. The noise and distortion meter is then calibrated to 0 db. The switch is then thrown back to the r-f position, and the a-m noise level read from the distortion and noise meter.

The author acknowledges the assistance of E. Miller, E. Love, and R. Richardson.

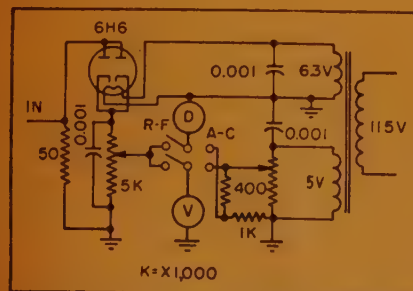


FIG. 9—Recommended method for measuring a-m noise on f-m carriers

HORSEPOWER NOMOGRAPH FOR RADAR ANTENNA ROTATORS

SUMMARY—Chart assists designers in making rapid preliminary calculations of the horsepower necessary to rotate shipboard radar-antenna reflectors which are not enclosed by radomes. Chart is applicable to elliptical as well as rectangular reflectors

By PAUL W. PEAY

KNOWING THE DIMENSIONS and desired speed of rotation of a radar antenna, this chart permits a rapid determination of the horsepower required to power the drive mechanism.

The total torque necessary to rotate the antenna was calculated from $T = \sqrt{T_d^2 + T_v^2} + T_m$, where T_d is torque for a balanced antenna in moving air, T_v is torque for an aerodynamically unbalanced antenna rotating in moving air and T_m is torque for a mechanically unbalanced antenna due to roll of a ship. In utilizing these torques, the following assumptions were made: wind velocity = 80 mph; aerodynamic unbalance factor = 0.25 ft; streamline or drag coefficient = 1.0; center of gravity displacement = 1 ft; antenna height above ship's roll center = 100 ft; period of ship's roll = 5 sec; ship's roll = 30 deg.

The horsepower was then found from the relationship $hp = (\text{torque} \times \text{rotational speed}) / 5,250$.

Examples

(1) Find the hp per ft of antenna height to drive a 20-ft wide by 12-ft high antenna revolving at 10 rpm.

Draw a vertical line from 20

on the reflector width scale to intersect the 10-rpm curve; from this draw a horizontal line to the hp/ft scale where the answer is 1.05. Multiplying this by 12 gives 12.6 as total horsepower.

(2) Find the total horsepower to drive a 28-ft wide by 15-ft high antenna revolving at 16 rpm. From 28 on the width scale, draw a vertical line to the

16-rpm curve. From this intersection draw a horizontal line to the base line, from there to 15 ft on the height scale. Horsepower is read as 60 from the total horsepower scale.

Horsepower values shown on this chart are for rectangular antennas; for elliptical antennas, use 59 percent of the rectangular antenna horsepower.

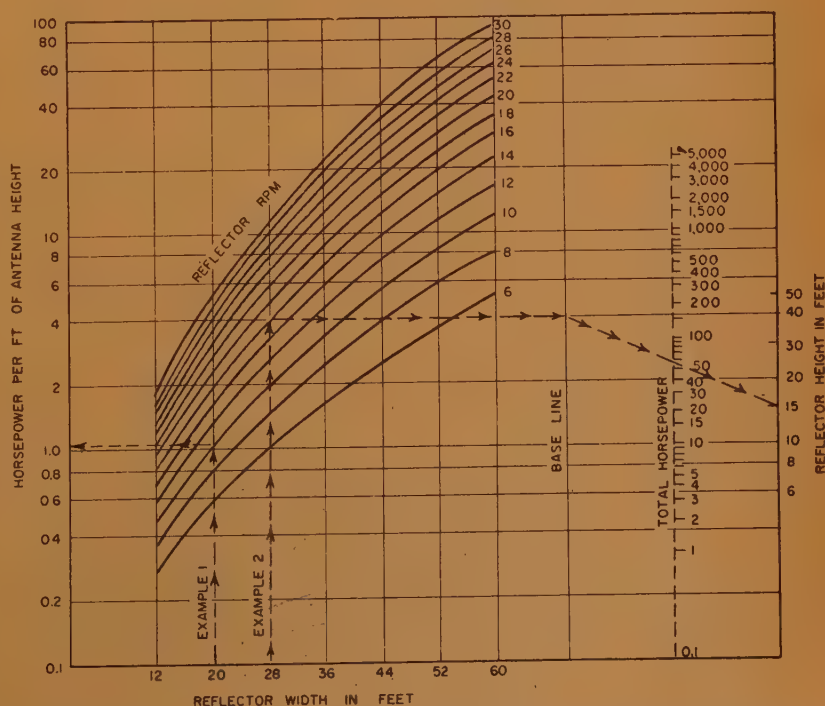
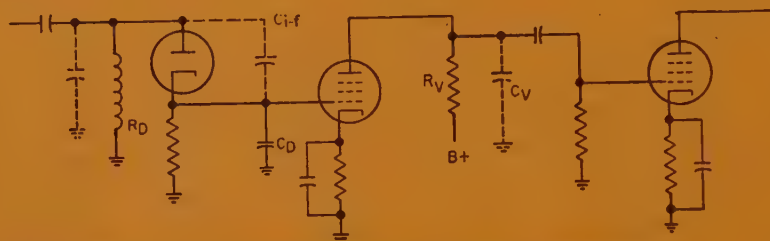


Chart gives horsepower in terms of radar antenna size and rotational speed

RADAR SECOND DETECTOR FILTER NOMOGRAPH

SUMMARY — Gives optimum circuit constants for second detector and video circuits of radar receiver when i-f value, upper video cutoff frequency, tube and socket capacitances are known



Radar receiver circuit, showing constants covered by nomograph

ONE DETAIL which tends to receive little emphasis in radar receiver design is optimization of the filter constants of the second detector. The recurrent problem of compromising between adequately bypassing the i-f components of the signal and retaining the high-frequency components of the video signal is solved easily by the accompanying nomograph.

Nomograph Scales

The basic nomograph consists of the scales f_{i-f} (intermediate frequency), f_d (detector filter frequency) and f_v (upper video 3-db cutoff frequency). The equation governing the relationship, $f_d = \sqrt{f_{i-f} f_v}$, determines the optimum detector filter frequency to be the geometric mean of the intermediate frequency or the lower 3-db frequency of

By CHESTER W. YOUNG

the i-f pass band and the upper video cutoff frequency.

Additional scales C_v and R_v give video circuit constants. Since good detector efficiency is based upon a good C_d/C_{i-f} ratio, this scale is added to the right of the nomograph.

Example

As an example, determine the constants of the detector and video circuits when the i-f is 50 mc, the upper cutoff f_v is 1 mc for the video, the detector diode-socket capacitance C_{i-f} is $2 \mu\mu\text{f}$ and the video tube and socket capacitances C_v total $30 \mu\mu\text{f}$.

Starting at the 50-mc point on the left-hand scale (f_{i-f}), draw a straight line to the 1-mc point on the middle scale (f_v) and read 7 mc on the f_d scale (A).

Selecting a C_d/C_{i-f} ratio of 10 on the scale at the extreme right, connect this value with the $2\text{-}\mu\mu\text{f}$ value on the C_{i-f} scale and read the value $20 \mu\mu\text{f}$ on the C_d scale (B). By extending a line joining the 7-mc point on the f_d scale and the $20\text{-}\mu\mu\text{f}$ point on the C_d scale to the right, the value 1,100 ohms is obtained for R_d (C).

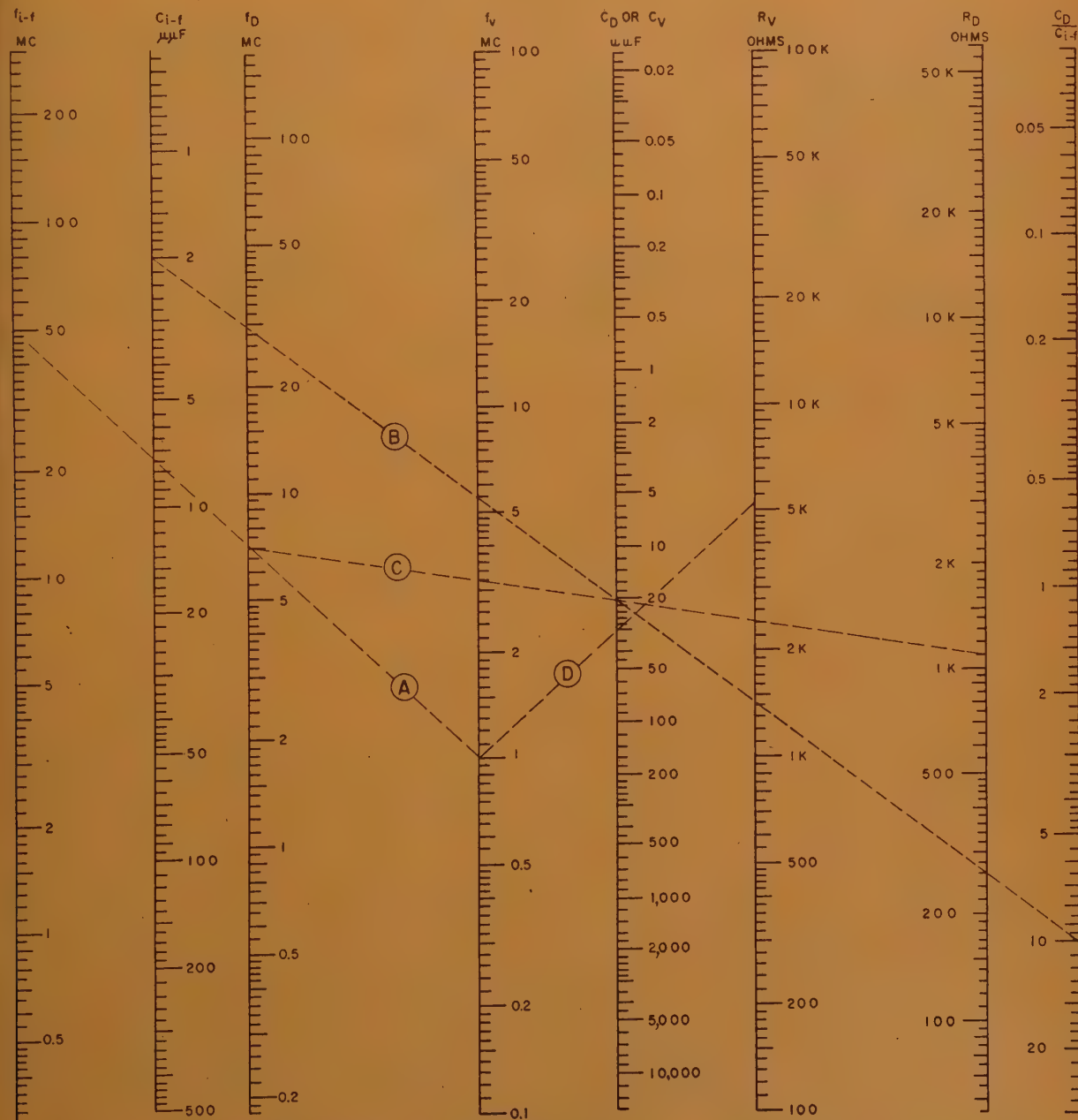
If no peaking compensation is used in the video circuit, the value of R_v can be determined to be 5,300 ohms by joining the 1-mc point on the f_v scale with the $30\text{-}\mu\mu\text{f}$ point on the C_v scale and extending it to the right to the R_v scale (D).

The rectified voltage developed at the output of a diode detector

is a function of the voltage distribution between capacitances C_D and C_{i-f} . The ratio of these two values was chosen to be 10 in the foregoing example so that most of the signal voltage (actually 10/11) is impressed across C_D for transfer to the next stage of the receiver.

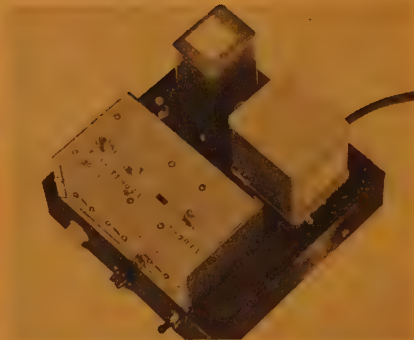
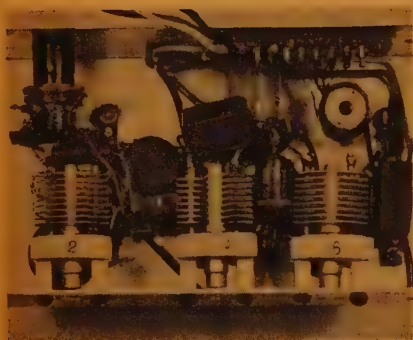
From the aspect of pulse envelope rise and fall time, the diode resistance should be low compared to the diode load resistance and the impedance of the i-f stage driving the detector. Specifically, it is recommended here also that the diode anode-cathode capacitance should be

considerably lower (by a factor of 10) than the input capacitance of the following stage. This ratio of 10 is an arbitrary compromise between the driving impedance and consequent pulse envelope degradation and the amount of i-f voltage that can be utilized as a signal.



Second detector filter nomograph. Lettered lines indicate four steps of design procedure. Line A gives detector filter frequency from i-f value and upper video cutoff frequency. Line B gives detector load capacitance value from detector capacitance ratio and detector tube capacitance. Line C gives detector load resistance value from detector filter frequency and detector load capacitance value. Line D gives first video amplifier plate load resistance from upper video cutoff frequency and video tube plate-cathode capacitance

DESIGNING TRANSISTORIZED MEACHAM-BRIDGE OSCILLATORS



Underside of amplifier chassis and top and bottom views of complete junction-transistor oscillator

By SAMUEL N. WITT, JR.

SUMMARY—Circuits have been designed using both point-contact and junction transistors. Operating at one megacycle, oscillators provide good long and short-time frequency stability. They are stable with respect to temperature and supply-voltage changes

DEVELOPED to provide exceptional stability, the transistor Meacham-bridge oscillator provides a reliable standard for measuring the performance of other transistor oscillators.

Electron-Tube Oscillator

The Meacham oscillator¹ consists of a bridge circuit and an amplifier. Most analyses assume that the amplifier is characterized by relatively constant gain and phase shift, zero initial phase shift and high amplifier input impedance. Maximum amplitude and frequency stabilities are obtained when all of the arms of the bridge are equal.²

Frequency instability is given by

$$\Delta f/f_0 \approx 2 \Delta \theta / (KQ) \quad (1)$$

where Q is the quality factor of the resonant circuit, K is the magnitude of the amplifier voltage gain with

the bridge connected and $\Delta \theta$ is the incremental phase shift of the amplifier.

The stability is directly proportional to the amplifier voltage gain and is $K/4$ greater than would be calculated on the basis of the Q of of a resonant circuit without the bridge.³

When a transistor amplifier is used, power gain becomes important since the input impedance of most transistor amplifiers is low.

For all bridge impedances approximately equal to the input and output impedances of the amplifier, frequency instability is given by¹

$$\Delta f/f_0 \approx 8 \Delta \theta / [Q(|\mu| + 8)] \quad (2)$$

where μ is the open-circuit gain of the amplifier.

In terms of amplifier voltage gain with the bridge connected, Eq. 2 becomes

$$\Delta f/f_0 \approx 4 \Delta \theta / [Q(K + 4)] \quad (3)$$

which shows that the stability is approximately one-half as great as obtained with infinite amplifier input impedance.

The frequency variation as a function of gain is

$$\Delta f/f_0|_K \approx -4 \theta \Delta K / [Q(K + 4)^2] \quad (4)$$

where θ is the phase shift of the amplifier and ΔK is the magnitude of the incremental change in amplifier gain.

Equation 4 shows that if the amplifier phase shift is zero, changes in gain will have no effect on frequency.

Equations 1 through 4 neglect the frequency-pulling effects of harmonic distortion. This is permissible with most electron-tube amplifiers since the amplitude is maintained relatively low. However, when transistors are used, harmonic

distortion may be of considerable importance.

Point-Contact Transistor

It was desirable to design a transistor oscillator to have a short-time instability of less than 1 part in 10^7 . On the basis of Eq. 3 and 4 it was concluded that the minimum voltage gain should be 25. Frequency of operation was to be one megacycle. Available crystals had a series-resonant impedance of 100 ohms. An investigation of suitable thermistors with a resistance of 100 ohms indicated that at least 4 mw would be necessary to drive the bridge. The oscillator in Fig. 1 was designed using two Western Electric type 1729 transistors.

This amplifier was capable of supplying about 8 mw to the bridge with low distortion. The output impedance was adjusted to 100 ohms by selection of the transformer turns ratio for maximum power transfer to the bridge. The input impedance was approximately 100 ohms. With the bridge connected, the overall voltage gain of the amplifier was about 25.

Crystal CR_1 is connected in series with the amplifier input to prevent uncontrolled oscillations. Crystals CR_1 and CR_2 must be series resonant at nearly the same frequency. The series crystal acts as a band-pass filter and has little control over the frequency of oscillation.

Oscillator Performance

Relative band-pass characteristics for three portions of the circuit are shown in Fig. 2. The pass-

band of the amplifier was broad because of the low values of Q resulting from the circuit loading. The passband of the amplifier and crystal combination is determined primarily by the characteristics of the crystal. The effective loaded Q is approximately one-half of the measured crystal Q . Maximum voltage gain is reduced one-half by the equivalent series resistance of the crystal.

Although the two crystals have approximately the same Q , the passband of the bridge circuit is narrower than that of the amplifier because of the effective Q multiplication of the bridge.

The relative phase characteristics of the circuit are also shown in Fig. 2. The amplifier without the series crystal would oscillate uncontrollably through the negative-feedback path of the bridge while with the series crystal it will not.

The oscillator performed satisfactorily, but it was not suitable for continuous laboratory use because of the unpredictable nature of point-contact transistors and because of the circuit changes and adjustments necessary when the transistors were replaced.

To obtain maximum power gain when a transistor was replaced, it was usually necessary to change the transformer turns ratios. The effective amplifier gain with the series crystal was only 12.5, zero amplifier phase shift did not occur at the transformer tuning which produced maximum gain and an isolated output capable of supplying appreciable power was not provided. Nevertheless, the oscillator compared

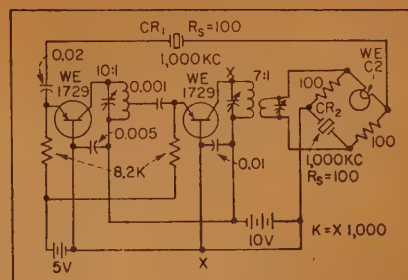


FIG. 1—Point-contact transistor oscillator using Meacham-bridge circuit

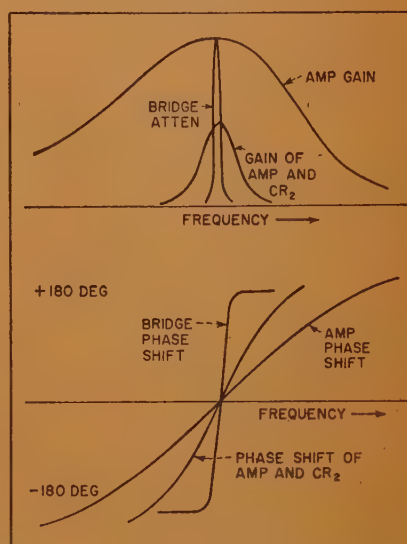


FIG. 2—Characteristics of point-contact transistor oscillator

favorably with an electron-tube oscillator⁴ constructed for comparison. Table I shows the comparison of the two oscillators.

Short-time stability was not comparable, for either oscillator, to the voltage stability. The short-time instability was obtained as the maximum frequency change over a 4-hour period with the ambient temperature varying approximately 5 degrees centigrade. The same crystal was used for both oscillators.

Junction-Transistor Oscillator

Of eight junction transistor types (more than 50 individual transistors), only the Germanium Products type RDX-300A was found suitable for the amplifier-output stage. The Texas Instruments type 904A silicon transistor was found suitable for the first amplifier stage.

The oscillator using junction transistors is shown in Fig. 3. The bridge amplifier is of conventional design using transformer coupling and includes a bias network to permit operation from a single power source. Measured input impedance

Table I—Comparison of Electron-Tube, Point-Contact and Junction-Transistor Oscillators

Item	Electron-Tube Osc	Point-Contact Transistor Osc	Junction Transistor Osc
Amplifying element	1-12BY7; 1-684	2-WE 1729	1-RDX-300A; 2-TI 904A
Frequency control	crystal in JK03 oven	crystal in JK03 oven	crystal in Lavoie oven
Frequency	1 mc	1 mc	1 mc
Output	3 v p-to-p to high impedance	3 v p-to-p to high impedance	5 v p-to-p to high impedance
Power supply	200 v d-c reg 6.3 v a-c	9 1.5-v batteries	15 to 20 v at 6 ma
Power required	16 w (less oven)	0.12 w (less oven)	100 mw (less oven)
Permissible voltage	±25 percent	±25 percent	±25 percent
variation			
Freq-voltage instability..	2 parts in 10^6 for 1 percent	2 parts in 10^6 for 1 percent	3 parts in 10^6 for 1 percent
Short-time insta- bility (4 hr)	3 parts in 10^7	4 parts in 10^7	4 parts in 10^8

Meacham-Bridge Oscillator Design (Continued)

at 1 megacycle was greater than 100 ohms. Overall voltage gain with a 100-ohm load on the secondary of the output transformer was 50. The undistorted output to the bridge was 2 volts peak-to-peak or 5 milliwatts.

The bridge is not an equal-arm bridge. This was necessitated by the choice of the lamp thermistor. The Western Electric K1 switchboard lamp was chosen for its good nonlinear characteristics with minimum power consumption. One arm of the bridge was made variable so that crystals of different characteristics could be accommodated.

No attempt was made to compensate against temperature variations except for placing the crystal in a Lavoie type K00000005 oven. The series-resonant frequency of the CR-18 crystal was more than 100 cps below 1 megacycle. Therefore, it was necessary to raise the resonant frequency with a 30- μ f series capacitor. The capacitor was made variable from 28 to 32 μ f to permit precise adjustment.

Bypassing the RDX-300A second base had little effect on the gain or phase shift of the amplifier. When the second base was not bypassed, a signal voltage of 0.5 v peak-to-peak was observed at the second base terminal. Therefore, it was decided that this point could be used as an output since changes in loading would have little effect on the frequency of oscillation. The 904A output stage was added to provide additional isolation and greater out-

put than was available directly from the second base of the tetrode. With the transformer, the open-circuit output voltage from the power-output stage was 5 v peak-to-peak. The voltage dropped to 0.5 v with a 1,000-ohm resistive load. With 6 feet of unterminated coaxial cable, approximately 2 v was obtained.

Several decoupling capacitors, not shown in Fig. 3, were necessary to eliminate spurious oscillations.

Construction

So-called miniature components were not used. All of the components were randomly chosen from a stock of standard tolerance components. The winding of the transformers was one of the major problems in the amplifier construction. The two transformers in the bridge amplifier were wound with tapped secondaries so the impedances could be matched to obtain maximum gain. The turns ratios shown are the ones which gave best results.

The two transformers of the bridge amplifier were placed at right angles to minimize coupling. The transformer of the power-output amplifier, at the upper left of the chassis, could not conveniently be placed at right angles to the other two transformers. As a result, some mutual coupling exists between the power-output stage and the bridge which accounts for a change in gain and phase shift of the bridge amplifier when the power-output stage is tuned. This has a slight effect on the frequency.

A regulated Transpac power supply is used with the equipment.

Table I shows that the voltage stability for this oscillator was slightly worse than that of the point-contact oscillator. The power required was less for the junction oscillator, which exclusive of the bias network and crystal oven required only 70 mw. The transistor oscillators and electron tube oscillator all operated satisfactorily over approximately the same range of voltage variations.

Stability

Short-time stability of the junction-transistor oscillator was much better than that of either of the other two oscillators. This was in part due to the excellent temperature characteristics of the 904A silicon transistors. Use of a better crystal oven also resulted in some improvement over the other circuits. The same crystal was used with all of the oscillators.

When the junction-transistor oscillator was operated continuously for six weeks on a battery power supply, the total drift in frequency was only 1 part in 10^7 . This drift was caused primarily by crystal aging. The instability for periods of a few minutes was 1 part in 10^6 .

The transistorized Meacham bridge oscillator was developed as a part of a study by the Engineering Experiment Station of the Georgia Institute of Technology.⁶ The program was sponsored by the Frequency Control Branch of the Signal Corps Engineering Laboratories, Fort Monmouth, New Jersey. The author expresses appreciation to B. J. Dasher and D. L. Finn of the Georgia Tech School of Electrical Engineering for their help in the preparation of this paper.

This paper was presented at the 1955 National Electronics Conference.

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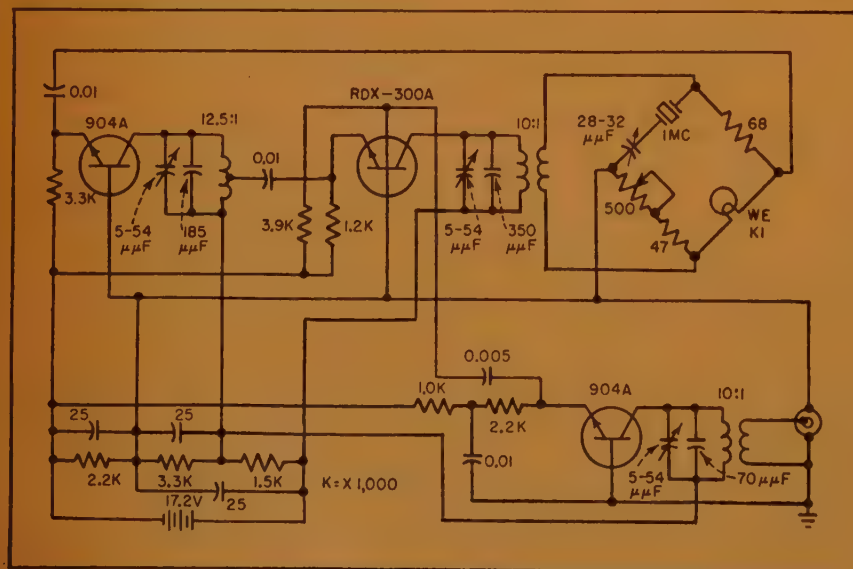


FIG. 3—Junction-transistor Meacham-bridge oscillator has three amplifier stages

DESIGNING FERRITE-ROD ANTENNAS FOR X-BAND OPERATION

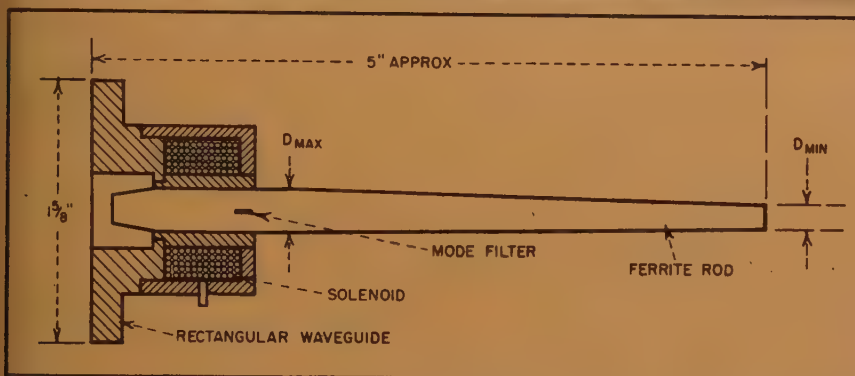
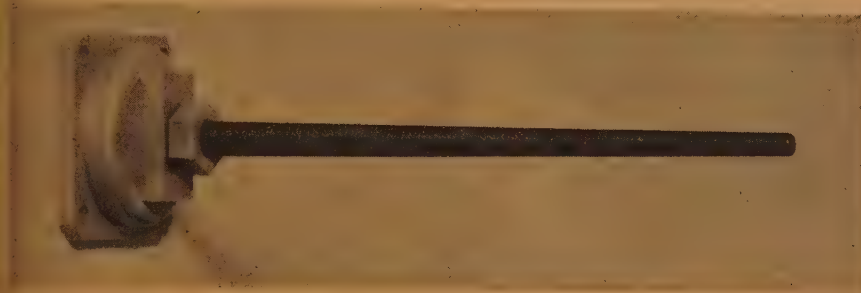


FIG. 1—Basic ferrite-rod antenna system for coupling to end of standard waveguide. Tapered end in waveguide aids impedance matching

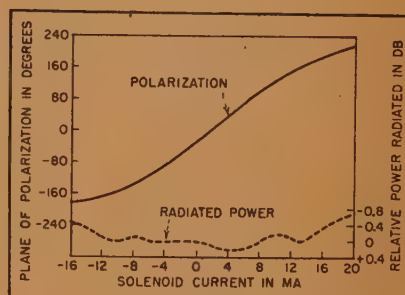


FIG. 2—Polarization and radiated power of ferrod antenna in relation to mode-switch solenoid current at 9,430 mc

By **FRANK REGGIA,**
E. G. SPENCER,
R. D. HATCHER,
 and **J. E. TOMPKINS**

SUMMARY—Dielectric radiators use ferrite-rod elements and ferrite switching devices for mode switching, array scanning and beam lobing. Radiation patterns show optimum design configuration of rod radiators for operation in the 9,000-mc band. Gain of a single radiating element is about 20 with vswr of less than 1.2

MICROWAVE antenna systems have been developed for X-band use, which employ rods of commercially available ferrites (ferrods) as dielectric radiating elements. Application of a magnetic field to a section of the ferrite radiator is used to obtain beam scanning, beam lobing, switching, modulation or rotation of the plane of polarization.

A typical X-band ferrite has a dielectric constant of 13.6 and an

initial permeability of 0.78. Its field-dependent permeability has a tensor characteristic which gives rise to the Faraday effect and the development of many useful devices.

The basic ferrite-rod antenna system is shown in Fig. 1. The radiator may be considered a dielectric-rod radiator, excited by a ferrite-filled section of cylindrical waveguide with a longitudinal applied magnetic field. The rod protrudes into the rectangular wave-

guide section and is magnetically coupled to the r-f fields. The short taper at the input end is used for impedance matching. The radiating portion of the ferrite rod is tapered to give maximum radiation along its axis and minimum radiation in the side lobes. The overall length of the system is about 5 inches. The ferrite-rod is $\frac{1}{4}$ -in. in diameter and about $4\frac{1}{2}$ -in. long.

The ferrite-filled waveguide section is $\frac{3}{4}$ -in. long and is surrounded

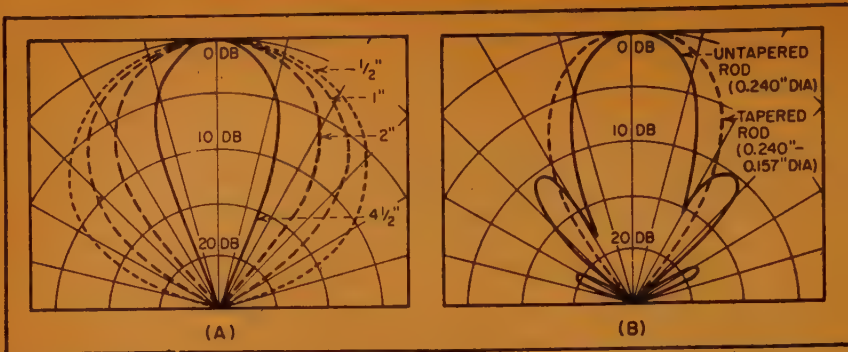


FIG. 3—Effect of ferrite length on radiated pattern at 9,500 mc (A) and effect of tapering rod (B) at 9,600 mc. Note reduction in side lobes obtained by tapering

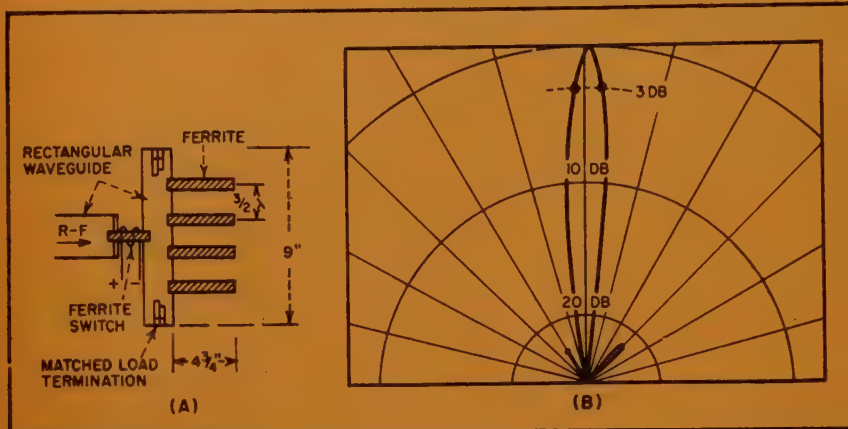


FIG. 4—Four-element radiator (A) has fan-shaped pattern in the plane of the rods as shown at (B). Vertical pattern of array is same as that of one rod

by a low-current solenoid. The mode filter, 0.02-in. thick and 0.06-in. wide, goes through the ferrite and makes electrical contact to both sides of the circular guide. These three components make up the ferrite mode switch or modulating section of the system.

Mode Switch Action

Operation of the mode switch depends on Faraday effect in the ferrite. This causes a rotation of the plane of polarization of the microwave energy incident upon the mode filter when a longitudinal magnetic field is applied as shown in Fig. 2. When the polarization of the incident wave is perpendicular

to the length of the mode filter, the wave propagates across essentially unchanged.

Rotating the polarization parallel to the length of the mode filter short-circuits the electric field, rejecting the microwave energy incident upon it. Greater than 20-db switching can be obtained with this modulating section with control currents of approximately 10 ma.

Modulating frequencies in the kilocycle range have been used with this system. Where required, it is possible to extend this frequency range up to a few megacycles by high-speed pulsing techniques.

Impedance matching between rod and waveguide is accomplished by

adjusting the length of the rod extending inside the guide. This adjustment is made less critical by a short taper at the input end of the rod. Input vswr's less than 1.2 and half-power beam widths of less than 28 degrees are not difficult to obtain with this single radiator.

Directivity in relation to length of a single untapered ferrite radiator, 0.240 in. in diameter, is shown in Fig. 3A. The rod is fed from the end of a rectangular waveguide at 9,500 mc. Beam width decreases with increasing length of the ferrite rod. Gain of a single untapered radiator 4 1/2 in. long was found to be approximately 20 at this frequency.

A comparison between the radiation patterns of a tapered and an untapered ferrite radiator, 3 1/2 in. long, at 9,600 mc is shown in Fig. 3B. Although the untapered rod gives a narrower beam, the power radiated in side lobes is excessive. This side-lobe radiation is almost completely eliminated by the tapered ferrite but produces an increase in the width of the main beam. By increasing the length of the tapered ferrite, the original value of the beam width is restored.

A simplified drawing of a 4-ferrite rod linear array and its radiation characteristics in the plane of the rods are shown in Fig. 4. The half-power beam width in this plane is approximately 6 degrees. In the vertical plane, beam width is that of a single rod, resulting in a narrow fan-shaped beam. The individual radiating elements are spaced $\lambda/2$ apart, providing maximum radiation along the axis of the rod.

Cavity-Fed Arrays

Another type of antenna array has been designed with ferrite-rod radiators magnetically coupled from resonant cavities. These cavity arrays are simple to construct and, in general, give higher gains than those previously described.

The field distribution and position of the rods inside a TE_{001} mode cavity, exciting a square array of ferrodas, are shown in Fig. 5. The magnitudes, directions and positions of the electric and magnetic fields can be seen with the rods at positions of maximum magnetic field.

There are six positions available

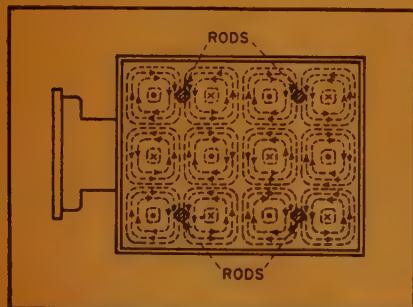


FIG. 5—Cavity array has rods positioned at points of maximum magnetic field intensity



from the walls at which there are zero electric and magnetic fields and zero r-f wall currents. At all such positions, shorting posts are placed to insure the proper mode of oscillation of the cavity and to insure in-phase excitation of the ferrite radiators.

An extension of this technique using 20 ferrite rods is shown in a photograph. The dimensions of this TE_{000} cavity array are 7 in. by $7\frac{1}{2}$ in. by $\frac{1}{2}$ in. and the cavity is excited by a waveguide coupling in the back. The beam width produced is 5 degrees by 7 degrees.

Array Switching and Lobing

To utilize the small size of the ferrite-rod antenna system, compact microwave switches, circulators, and phase shifters were designed to obtain beam scanning, lobing and switching.

Operation depends upon the variable magnetic properties of the ferrite as shown in Fig. 6. These curves show the components of the dispersive scalar permeability, $(\mu' + K')$ and $(\mu' - K')$, of the ferrite below magnetic saturation for positive and negative circularly-polarized waves, respectively. Since a linear wave may be considered to be composed of these two circularly-polarized waves, the effective permeability (μ'_{eff}) for a linear wave is included in the figure.

The small microwave switch consists of a $\frac{1}{4}$ inch ferrite-filled cylindrical waveguide section inside a low-field solenoid. The ferrite protrudes approximately $\frac{1}{8}$ -in. into a rectangular waveguide. The switch is on when no current flows through the solenoid. With approximately 10-ma solenoid current, the plane of polarization of the microwave energy is rotated 90-deg in the cir-

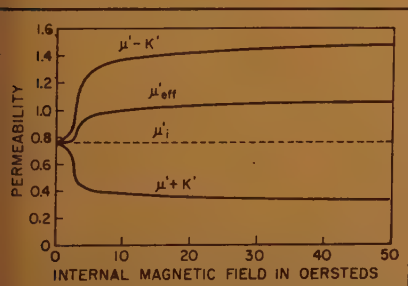


FIG. 6—Circularly polarized permeabilities of ferrite material plotted against internal magnetic field



Beam lobing ferrite-rod antenna system using ferrite magnetic switch

cular waveguide section. This rotated r-f field is now cross-polarized with respect to the output waveguide and the energy is reflected back toward the source. Up to 30-db switching has been obtained with this device.

By employing a slightly smaller ferrite-filled cylindrical waveguide section, the same form of switch is made to operate on the waveguide-below-cutoff principle. When current flows in the solenoid, effective permeability of the ferrite is increased sufficiently to allow the ferrite-filled section of waveguide to be near, but above, cutoff. With no current in the solenoid, the effective permeability is decreased and the waveguide is operating below cutoff. Up to 50-db switching has been obtained with this device.

Circulator-Type Switch

Another ferrite unit using the Faraday effect is a circulator-type switch. The microwave energy enters a ferrite-filled section of waveguide where its plane of polarization is changed by an external magnetic field. By rotating the plane of polarization, energy can be made to propagate through either arm. At least 20-db switching can be obtained with less than 20-ma solenoid current.

This switch has been used effectively in beam-lobing systems as shown in one of the photographs.

Array Scanning

Application of a longitudinal magnetic field to the feed section of

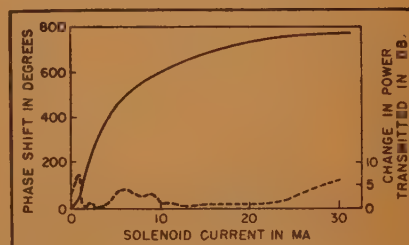


FIG. 7—Phase shift and power output as solenoid current is changed

a ferrite radiator results in a change of the phase of the radiated energy with respect to its neighbor. By phase shifting between rods the radiated beam can be made to scan back and forth by an amount equal to its beam width. In a particular application, beam shifting of ± 5 degrees was obtained using this technique without causing a deterioration of the beam characteristics.

Another method for obtaining the same results is to use a closed form of ferrite phase shifter having the properties shown in Fig. 7. Reciprocal phase shifts greater than 600 degrees have been obtained with variations in transmitted power as shown in the lower curve.

This ferrite device, similar to the microwave switch is used between the radiating elements. A phase shift of 90 degrees between radiating elements spaced λ , apart will give a 10-deg beam scan. In the laboratory a ± 10 -deg scan was obtained at a 20-kc scanning rate with only moderate broadening of the beam.

DESIGN OF TRIPLE-TUNED CIRCUITS

SUMMARY—Procedure and curves based on normalized low-pass filter enable the design of triple-tuned circuits having a maximally flat response and taking parasitic dissipation into account. Typical circuits and examples are given for interstage and band-pass filters

By PHILIP R. GEFKE

CONVENTIONAL DESIGN procedures for interstage triple-tuned circuits have the disadvantages that formulas taking parasitic dissipation into account are not generally available and that conventional designs work between equal terminations. The latter causes a 6-db loss in voltage gain, in addition to the insertion loss of the filter.

Low-Pass Prototype

The chart in Fig. 1 gives the element values of a low-pass filter normalized for a one-ohm source, open-circuit load and cutoff at one radian a second.

To design a low-pass filter to work from a source of R ohms and cutoff at f_c only impedance and frequency scaling to the normalized filter need be applied, using the following equations:

$$L' = RL/2\pi f_c \quad (1)$$

$$C_1' = C_1/2\pi f_c R \quad (2)$$

$$C_2' = C_2/2\pi f_c R \quad (3)$$

The result will be a low-pass filter having the flat-loss given in the chart and attenuation varying with frequency as follows:

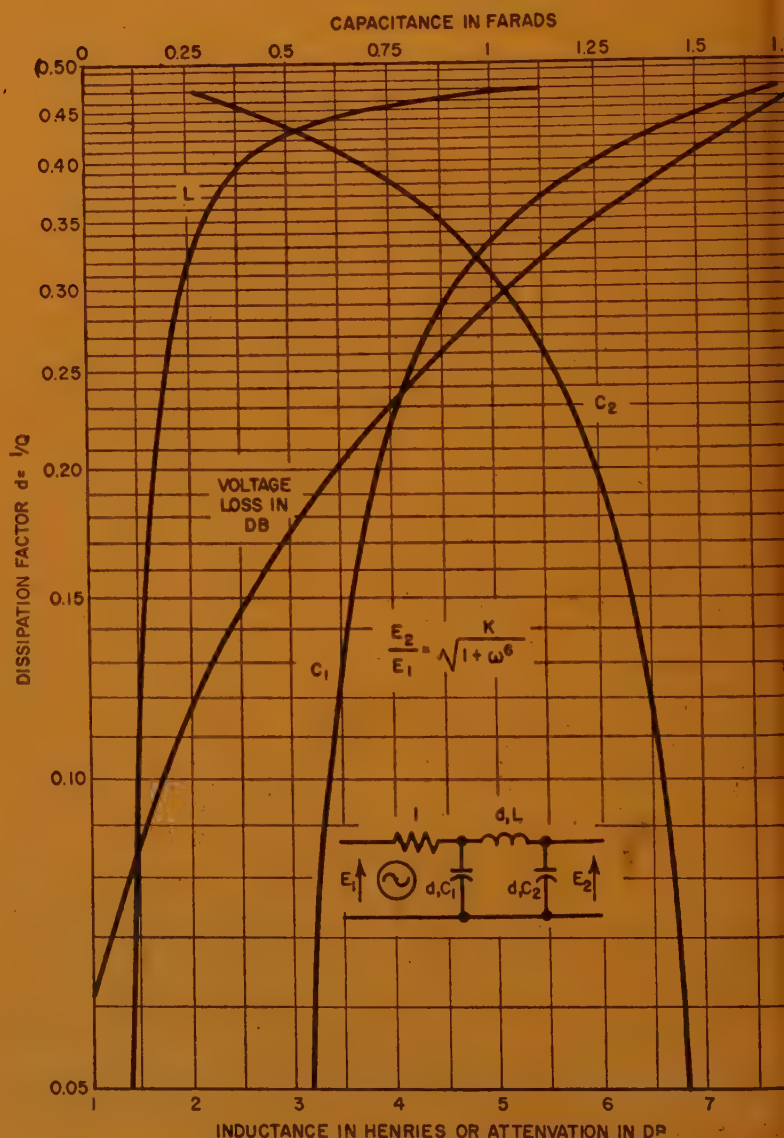


FIG. 1—Curves give normalized values of L , C and d used in design procedure

$$A = \sqrt{1 + (f/f_0)^6} \quad (4)$$

for any frequency f .

Where $d < 0.05$ the following approximate formulas give good accuracy

$$C_1 = \frac{1}{2 - 3d}, \quad L = \frac{4 - 12d}{3 - 12d} \quad (5)$$

$$C_2 = \frac{3 - 12d}{2 - 7d} \text{ and Loss} =$$

$$20 \log_{10} (2d^2 - 2d + 1) \text{ in db}$$

By setting $d = 0$ in Eq. 5 the correct values for lossless inductors and capacitors are obtained, hence

$$C_1 = 1/2, L = 4/3, C_2 = 3/2 \text{ and Loss} = 0 \text{ db} \quad (6)$$

To choose the value of d a relationship between the band-pass filter and its low-pass prototype, must be used, thus $d = f_0/Q_{BP} (f_2 - f_1)$ (7) where Q_{BP} is the Q that is used in each branch of the band-pass filter, f_2 and f_1 are the cutoff frequencies of the band-pass filter and $f_0 = \sqrt{f_2 f_1}$. The value of d obtained from Eq. 7 is used to obtain element values and flat-loss from the chart. This value of flat loss will apply both to the band-pass filter and to its low-pass prototype.

Low-Pass to Band-Pass

To transform from a low-pass to a band-pass filter, scale the normalized low-pass filter to an impedance level of R ohms and cutoff f_c . The cutoff frequency is equal to the bandwidth, $f_2 - f_1$, of the desired band-pass filter.

Next, tune all three branches of the filter to f_0 by inserting a capacitor in series with L' and inductors in parallel with C'_1 and C'_2 , as shown in Fig. 2. Thus L' and C' resonate at f_0 as do L'_1 , C'_1 and L'_2 , C'_2 .

Performance

If the flat-loss is ignored the relative attenuation is

$$A = \sqrt{1 + y^6}, \text{ where} \quad (8)$$

$$y = b(f/f_0 - f_0/f), \quad b = f_0/f_2 - f_1 \quad (9)$$

For calculating the attenuation at frequencies remote from the pass-band the following approximation may be used

$$A \cong y^3 \text{ or } 20 \log_{10} A \cong 60 \log_{10} y \text{ in db} \quad (10)$$

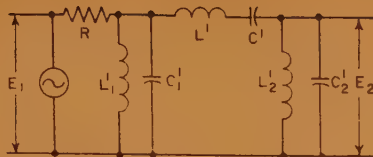


FIG. 2—Transformed band-pass filter

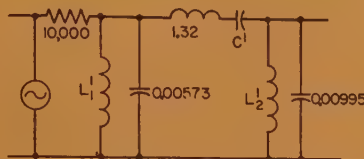


FIG. 3—Scaled band-pass filter designed from chart

Tolerances of from 1 percent to 5 percent on element values and 15 percent on Q will usually give satisfactory results provided that each branch of the filter is adjusted to resonate accurately at f_0 .

Examples

As an example, design an interstage filter to work from a 10,000-ohm plate resistance, having 3 db points at 9 and 11 kc, coil Q of 25 and giving 50 db attenuation at 20 kc.

Here $f_0 = \sqrt{f_1 f_2} = \sqrt{99} = 9.95$ kc, $b = 5$, at $f = 20$ kc, $y = 7.56$ hence $20 \log_{10} A = 60 \log_{10} 7.56 = 52.7$ db.

Evidently one triple-tuned circuit will have sufficient attenuation. From Eq 7, $d = 0.20$. Entering the chart at $d = 0.20$ obtain $C_1 = 0.720$, $L = 1.66$, $C_2 = 1.25$, Loss = 3.5 db.

Scaling the normalized prototype to 10,000-ohm impedance level, and cutoff at 2 kc, obtain $C'_1 = 0.00573 \mu F$, $C'_2 = 0.00995 \mu F$ and $L' = 1.32 H$. So the band-pass filter will have the configuration shown in Fig. 3.

Choosing C' to resonate with $1.32 H$ at 9.95 kc gives $C' = 194 \mu \mu F$. Similarly, $L'_1 = 44.6$ MH, $L'_2 = 25.7$ MH. Since the series coil is large enough to cause difficulty with its self resonant frequency, tap L'_1 and L'_2 at 10 per cent of their inductance. This will reduce the impedance level of the series arm by a factor of

10 to give the final design shown in Fig. 4.

As another example, a 200-cps signal varies by ± 5 per cent, and it is desired to measure the second harmonic present while attenuating the fundamental and a large third harmonic by 80 db. Design a filter which will work from a 20,000-ohm source. Inductor Q 's of 16.6 are available.

If cutoff frequencies of 370 cps and 430 cps are chosen, then $f_0 = 399$ cps and $f_2 - f_1 = 60$ cps. Then $b = 6.65$. To check the attenuation in the pass-band, write $y = 0.682$ at $f = 420$ which is the maximum signal frequency and $A = 20 \log_{10} \sqrt{1 + (0.682)^6} = 0.426$ db.

At 600 cps, the third harmonic, $y = 5.58$, $A = 60 \log_{10} 5.58 = 44.8$ db.

From these calculations it is apparent that two triple-tuned circuits will be needed, and the pass-band variation is 0.85 db.

From Eq. 7, $d = 0.4$ which gives $C_1 = 1.25$, $C_2 = 0.68$, $L = 2.57$ and loss = 6.8 db.

Raising this filter to a 20,000-ohm impedance level and a 60 cps cutoff gives $C'_1 = 0.166 \mu F$, $L' = 136.3 H$ and $C'_2 = 0.0902 \mu F$.

Finding values to resonate with C'_1 , L' , C'_2 at 399 cps gives $L'_1 = 0.958 H$, $C' = 0.00117 \mu F$ and $L'_2 = 1.76 H$ and the configuration shown in Fig. 5.

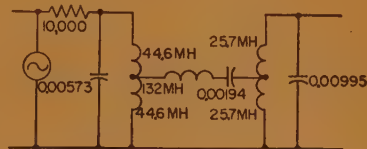


FIG. 4—Final interstage filter design derived from circuit of Fig. 3.

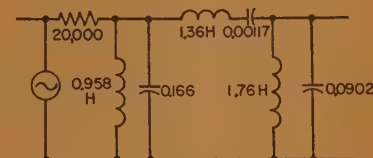


FIG. 5—Final band-pass filter configuration for second harmonic of 200-cps

REGULATED TRANSISTOR

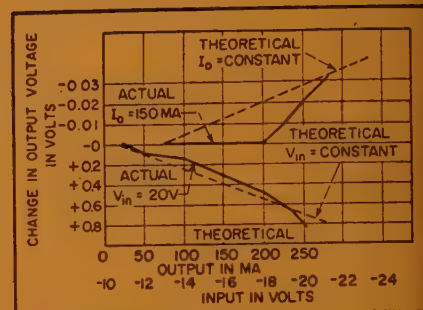
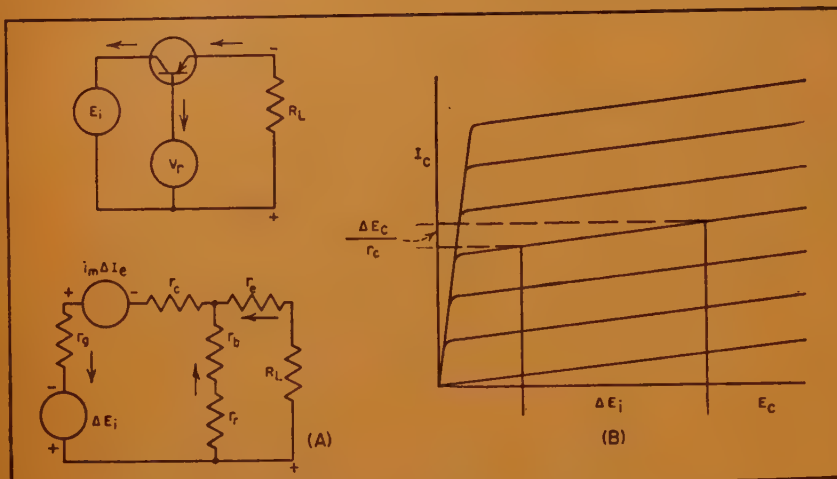


FIG. 2—Theoretical and actual characteristics of series-regulated supply

FIG. 1—Series-regulated supply and equivalent circuit (A) using transistor characteristic shown at (B)

SUMMARY—Series and shunt regulator design equations provide method of obtaining low voltage power supplies with any required degree of regulation. Actual circuit derived from these equations are discussed and laboratory tests show good agreement with predicted operation



Experimental supplies use terminal board construction for ease of measurement

SIMPLE compact low-voltage transistor power supplies are now entirely feasible using available transistors. Virtually any degree of regulation can be obtained with only a small increase in complexity of the circuit.

The output voltage of a power supply is a function of output current and input voltage

$$E_o = E_o(E_i, I_o) \quad (1)$$

E_o = output voltage, E_i = input or line voltage, I_o = output or load current. Since in actual practice the load is established by the choice of load resistance, or more conveniently load conductance the output voltage can be written as $E_o = E_o(E_i, G_L)$ where G_L is load conductance.

Then

$$\Delta E_o = \left(\frac{\Delta E_o}{\Delta E_i} \right)_{\Delta G_L=0} \Delta E_i + \left(\frac{\Delta E_o}{\Delta G_L} \right)_{\Delta E_i=0} \Delta G_L$$

Multiplying the second term numerator and denominator by E_o + ΔE_o :

$$\Delta E_o = \left(\frac{\Delta E_o}{\Delta E_i} \right)_{\Delta G_L=0} \Delta E_i +$$

POWER SUPPLY DESIGN

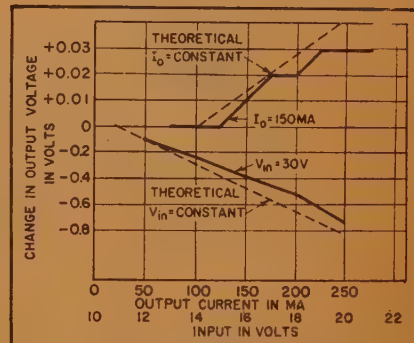
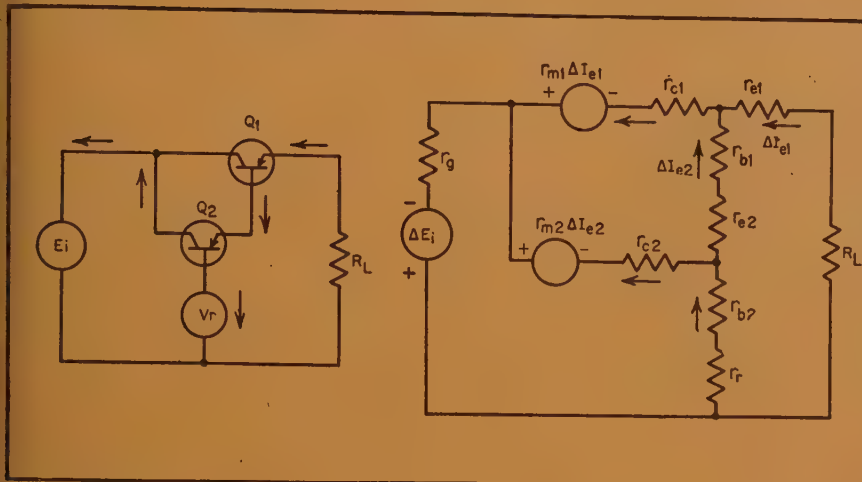


FIG. 4—Operating characteristics of two-transistor regulator circuit

FIG. 3—Two transistor regulator characteristics are determined by equivalent circuit as described in text

By J. WALTER KELLER, Jr.

$$\left(\frac{\Delta E_c}{(E_o + \Delta E_o) \Delta G_L} \right)_{\Delta E_i=0} (E_o + \Delta E_o) \Delta G_L$$

 $(E_o + \Delta E_o) \Delta G_L$ differs from ΔI_o by the term $G_L \Delta E_o$. This term can be neglected because, with any reasonable regulator, it is quite small compared to ΔI_o . Thus

$$\Delta E_o = \left(\frac{\Delta E_o}{\Delta E_i} \right)_{R_L=\text{constant}} \Delta E_i + \left(\frac{\Delta E_o}{\Delta I_o} \right)_{\Delta E_i=0} \Delta I_o \quad (2)$$

This equation justifies the experimental procedure of holding R_L constant instead of I_o when obtaining the voltage regulation.

This equation is the basis for the a-c type of equivalent circuit. The output voltage variation is equal to the input voltage minus an I-R voltage drop. The two terms on the right of Eq. 2 should be as small as possible. Consequently the design of a voltage regulator should concentrate on making $\Delta E_o / \Delta E_i$ and $\Delta E_o / I_o$ as small as possible.

The most simple regulator design attempted is shown in Fig. 1A.

The transistor is a *pn*p power unit rated at 20 watts, with a heat sink at 25 C. The emitter of the transistor is biased in the forward direction and tends to be very close to the potential of the base which is the reference voltage. Line-voltage variations are dropped across the large dynamic collector resistance and are greatly reduced at the emitter.

To determine the coefficients of Eq. 1 assume linear operation and from small-signal equivalent circuit theory

$$\left(\frac{\Delta E_o}{\Delta I_o} \right)_{\Delta E_i=0} = -r_o - (1-\alpha)(r_b + r_r) \quad (3)$$

This is the load regulation of the circuit of Fig. 1A. The input-voltage regulation employing small-signal equivalent circuit theory is

$$\left(\frac{\Delta E_o}{\Delta E_i} \right)_{\Delta I_o=0} = \frac{r_b + r_r}{r_o \left[1 + \frac{(1-\alpha)(r_b + r_r)}{R_L + r_o} \right]} \times \frac{R_L}{R_L + r_o} \quad (4)$$

This assumes $r_o \gg r_b + r_r + r_o$, and $R_L =$ load resistance.

The operation of input voltage

regulation can be seen by observing that the slope of the collector characteristics, shown in Fig. 1B, is approximately the series resistance to input voltage changes.

Now Eq. 2 becomes

$$\Delta E_o = \frac{r_b + r_r}{r_o \left[1 + \frac{(1-\alpha)(r_b + r_r)}{R_L + r_o} \right]} \times \frac{R_L}{R_L + r_o} \Delta E_i - [r_o + (1-\alpha)(r_b + r_r)] \Delta I_o \quad (5)$$

For a power transistor, substituting typical parameter values $r_o = 10K$, $r_o = 1.5$, $r_b = 50$ and $\alpha = 0.96$, $R_L = 75$, $r_r = 0$, in Eq. 5 the following equation is obtained:

$$\Delta E_o = 0.004 \Delta E_i - 3.5 \Delta I_o \quad (6)$$

Using the circuit shown in Fig. 1A the curves of Fig. 2 were obtained. The nonlinearity of the experimental points and their departure from the theoretical value were expected in view of the large variation of transistor parameters with operating point. However, this does not limit the utility of the regulation equations in most practical cases because power supplies are usually employed in a narrow range making the assumption of a



Regulated power supply uses metal bracket construction as heat sink for power transistors. Rectifiers are mounted on underside of board

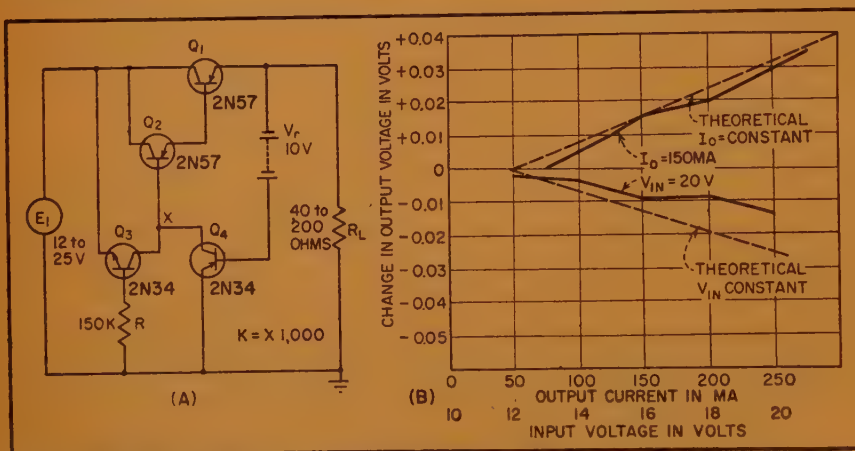


FIG. 5—Regulator using four transistors including a single-stage feedback amplifier (A) shows good correlation between actual and theoretical results (B)

single operating point a good approximation.

Equation 5 appears to contain sufficiently accurate relationships upon which further design considerations can be based. It can be predicted that better regulation would result from a higher alpha and r_o or lower r_i , r_e and/or r_c .

One major drawback of the circuit of Fig. 1A is that it draws too much reference current. The circuit of Fig. 3 gives about the same regulation, but with substantially less reference current drain. Since $I_o = (1 - \alpha) I_e$, the reference current assuming identical transistors is approximately 0.002 I_o . This is equivalent to having a larger α .

Employing the equivalent circuit of Fig. 3 regulation will then be:

$$\frac{\Delta E_o}{\Delta I_o} = -[r_{e1} + (1 - \alpha_1)(r_{b1} + r_{e2}) + (1 - \alpha_1)(1 - \alpha_2)(r_{b2} + r_e)] \quad (7)$$

$$\frac{\Delta E_o}{\Delta E_i} = \frac{r_{b1} + r_{e2} + (1 - \alpha_2)(r_{b2} + r_e)}{r_{e1}} \times \frac{R_L}{R_L + r_{e1}} \quad (8)$$

These equations show that the reference resistance can be much larger than in the single transistor circuit before it becomes significant. Since Q_1 will be carrying the full-load current and since the circuit will be required to deliver currents close to the peak ratings of Q_1 , the alpha and r_e of this transistor may be much smaller than for small-current bias. It would not be wise to assume equal parameters for the two transistors when using

Eq. 7 and 8. The values of the parameters used in the single-transistor regulator were large bias values. The proper values for Q_1 are $r_o = 90K$, $r_b = 60$, $r_e = 2.5$ and $r_c = 50$ ohms and $\alpha = 0.97$. The equation for regulation can be shown to be

$$\Delta E_o = 0.0067 E_i - 3.7 \Delta I_o \quad (9)$$

This equation is compared with experiment in Fig. 4. The agreement is good since parameter values used in the equations were average values of a sample of ten transistors.

Both circuits discussed are basic series-type regulators employing the collector resistance for dropping line voltage to output voltage. The size of the dropping resistor is dependent upon the difference in voltage between the load and the base or reference, less the drop in voltage caused by current in the emitter, base and reference resistances. The regulation is a function of the I-R drop in the circuit path between output voltage and reference. This drop can be made small by making the resistance of this path small or by making the change in current small in this circuit. Clearly, the size of the reference current change is dependent upon the amplification in the loop that tries to correct for output voltage change.

When a single transistor is used to sense the difference in reference voltage and output voltage, regulation can be expressed as

$$\frac{\Delta E_o}{\Delta I_o} = \frac{\left[\frac{r_{ef}}{1 - \alpha_f} + r_{bf} + r_e \right]}{G_m}$$

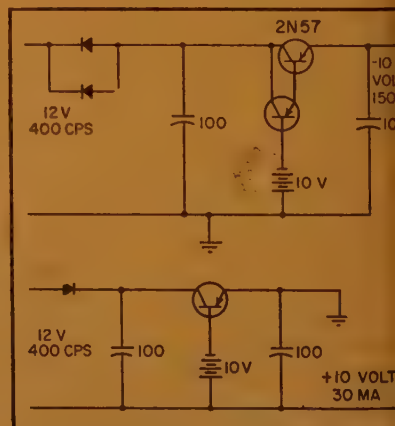


FIG. 6—Power supplies providing plus minus 10 volts designed for use in ordnance field equipment

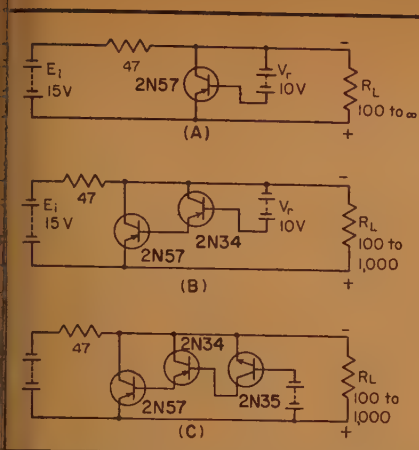


FIG. 7—Three shunt-type transistor regulators for low-voltage power supplies

$$\frac{\Delta E_o}{\Delta E_i} = \frac{\left[\frac{r_{ef}}{1 - \alpha_f} + r_{bf} + r_r \right]}{G_o R} \quad (11)$$

where the subscript *f*, refers to the transistor parameter of the first amplifying stage, or the stage where the reference is compared with the output voltage. The G_o is total current gain in both the control and series resistance sections of the power supply and R is the total parallel resistance between the input voltage line and the junction of the series resistance and control sections.

Figure 5A shows an example of a voltage regulator employing a single-stage feedback amplifier. The dynamic series dropping resistor is made up of Q_1 and Q_2 . Transistor Q_1 provides stage of gain. Transistor Q_2 supplies a constant current to junction X which is shared by the base of Q_2 and collector of Q_1 .

If the output voltage decreases as the result of a greater load current the base voltage of Q_1 will decrease toward ground causing Q_1 to conduct less. The current that normally would have gone through Q_1 now is diverted through Q_2 . This causes both Q_2 and Q_1 to conduct more, which is equivalent to reducing the series-regulator resistance and results in the output voltage increasing, thus tending to compensate for the drop in voltage.

Transistor Q_2 should be connected backwards, using the emitter as collector. Temperature stability of a transistor with large resistance in the base is poor unless the alpha is low. The alpha is usually quite

low in the back direction. Furthermore, the quality of this particular connection as a constant current source is independent of alpha.

Under certain conditions, better regulation could be obtained by employing transistor Q_2 as an additional gain stage in the amplifier and using a resistor in the input voltage line to the base of Q_2 to supply the needed current. This would depend mainly on how much larger the input voltage is as compared to the output voltage and the required regulation range.

The equation for regulation is

$$\Delta E_o = \frac{r_{ef} + (1 - \alpha_1)(r_{b4} + r_r)}{\alpha_1 R \frac{1 - \alpha_3}{a_3}} \Delta E_i - \frac{(1 - \alpha_1)(1 - \alpha_3)}{\alpha_1 a_3} \times [r_{b4} + (1 - \alpha_4)(r_{b4} + r_r)] \Delta I_o \quad (12)$$

A solution to Eq. 12 using typical transistor parameters gives $\Delta E_o =$

employing high-gain servo amplifiers the major temperature problems are found in the amplifier, and principally, in the first stage where the comparison between reference and output voltage is made. Silicon components employed here may alleviate the problem but there will still be a need for compensation of the emitter to base voltage change in the first or comparison stage.

Shunt Types

The shunt types of power supply shown in Fig. 7 are subject to the same general type of analysis as the series units. While their regulation in a limited range can be made as good as the series type, the total range over which they will regulate is in general less. Over a small range the circuit of Fig. 7C has desirable features. It is simple, its voltage reference is grounded on

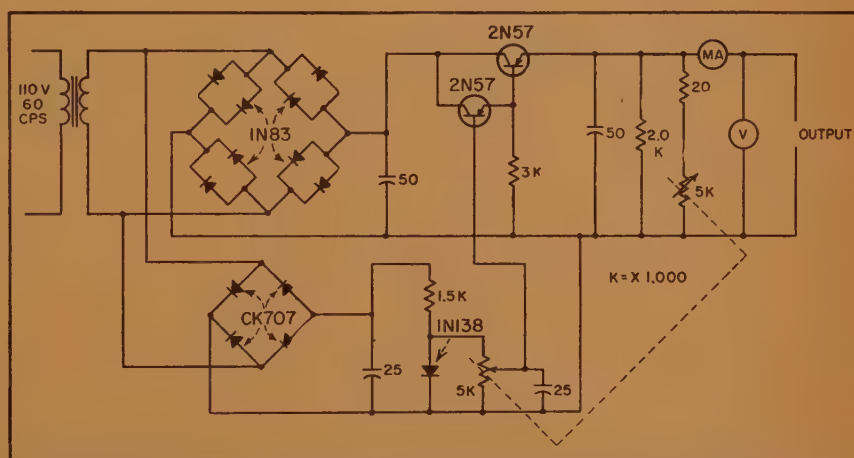


FIG. 8—Variable voltage regulated supply for laboratory use employs two transistors

$0.004 E_i - 0.13 \Delta I_o$. The comparison of this equation with experiment is shown in Fig. 5B.

Supplies giving outputs of +10v and -10v are shown in Fig. 6.

Temperature

The single transistor regulator of Fig. 1A has a 2.5-percent change in output voltage over the temperature range of 25 C to 80 C. The circuit of Fig. 3 has a 5-percent change in output voltage over that range. This temperature coefficient can be compensated by employing a reference with a negative temperature coefficient.

In more complicated regulators

one side which lends itself to use of Zener diodes and its regulation is comparable to the best 3-transistor series-type regulator.

A variable voltage regulated power supply for laboratory use is shown in Fig. 8. Note that there is no feedback stage. One additional transistor feeding back from the reference could improve the regulation by a factor nearly equal to the beta of the added transistor.

Thanks are extended Stanley Gordon who experimentally checked the formulas, Charles Durieu for recommendations of mathematical rigor and Morris Brenner for supplying transistor parameters.

L NETWORK DESIGN

SUMMARY—Technique for using Smith chart to speed design of L matching networks for transmission lines and waveguides using lumped parameters. Shaded-area charts show at a glance impedance ranges that can be matched with each type of L network

THE FAMILIAR Smith chart for transmission lines is also a useful tool for designing matching networks. As an example, consider the case where it is desired to match an impedance $Z_L = (0.3 - j1.6)R_o$ to R_o with the L matching network shown in Fig. 1. It is assumed that the inductances are lossy so that $R_1 = X_1 \tan \theta = 0.2X_1$ and $G_2 = -B_2 \tan \theta = -0.2B_2$. All impedances and admittances are normalized with respect to R_o and $G_o = 1/R_o$, respectively.

Let $Z_A = Z_L + R_1 + jX_1$, and $Y_A = 1/Z_A$. Since $Y_A + G_2 + jB_2 = 1$, Y_A must lie on curve $Y = 1 \pm k(\tan \theta - j)$, where k is a real variable. This curve is circle OA' with center C . To locate C , lines OC and OD are drawn as indicated in Fig. 1. Point D bisects its line. Point C is located as indicated.

Point C is inverted to obtain C' on line OC so that $C'O = OC$. Since Y_A must lie on circle OA' , Z_A must lie on circle OH whose center is C' . To determine Z_A ,

By H. F. MATHIS

plot curve $Z = Z_L + p(\tan \theta + j)$, where p is a real variable. Point A , where this curve intersects circle OH , is the desired value of Z_A . The value of Y_A is found by inverting point A to obtain A' . Finally, $R_1 + jX_1 = (Z_A - Z_L)R_o = (0.498 - j0.610) - (0.3 - j1.6)R_o = (0.198 + j0.990)R_o$ and $G_2 + jB_2 = (1 - Y_A)G_o = 1 - (0.803 + j0.985)G_o = (0.197 - j0.985)G_o$.

General Procedure

In general, for L matching networks plot Z_L or Y_L first on the Smith chart. Next, plot the impedance or admittance into which Z_L is to be transformed, and find a suitable path connecting these points.

It is impossible to match all possible values of Z_L with a given type of L network. For example, if $Z_L = 0.5R_o$, the matching network shown in Fig. 1 could not be used. Impedances which may be matched with a given type of L network are shown as areas on Smith charts in Fig. 2. It is assumed that it is desired to transform Z_L into R_o and that Z_L is normalized with respect to R_o .

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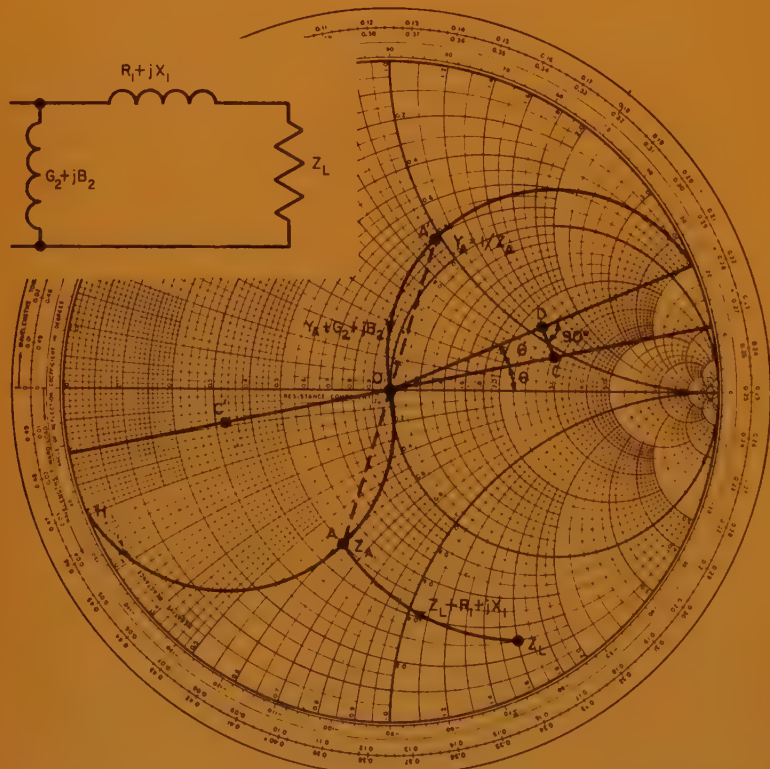


FIG. 1—Smith-chart procedure for determining parameters of L matching network

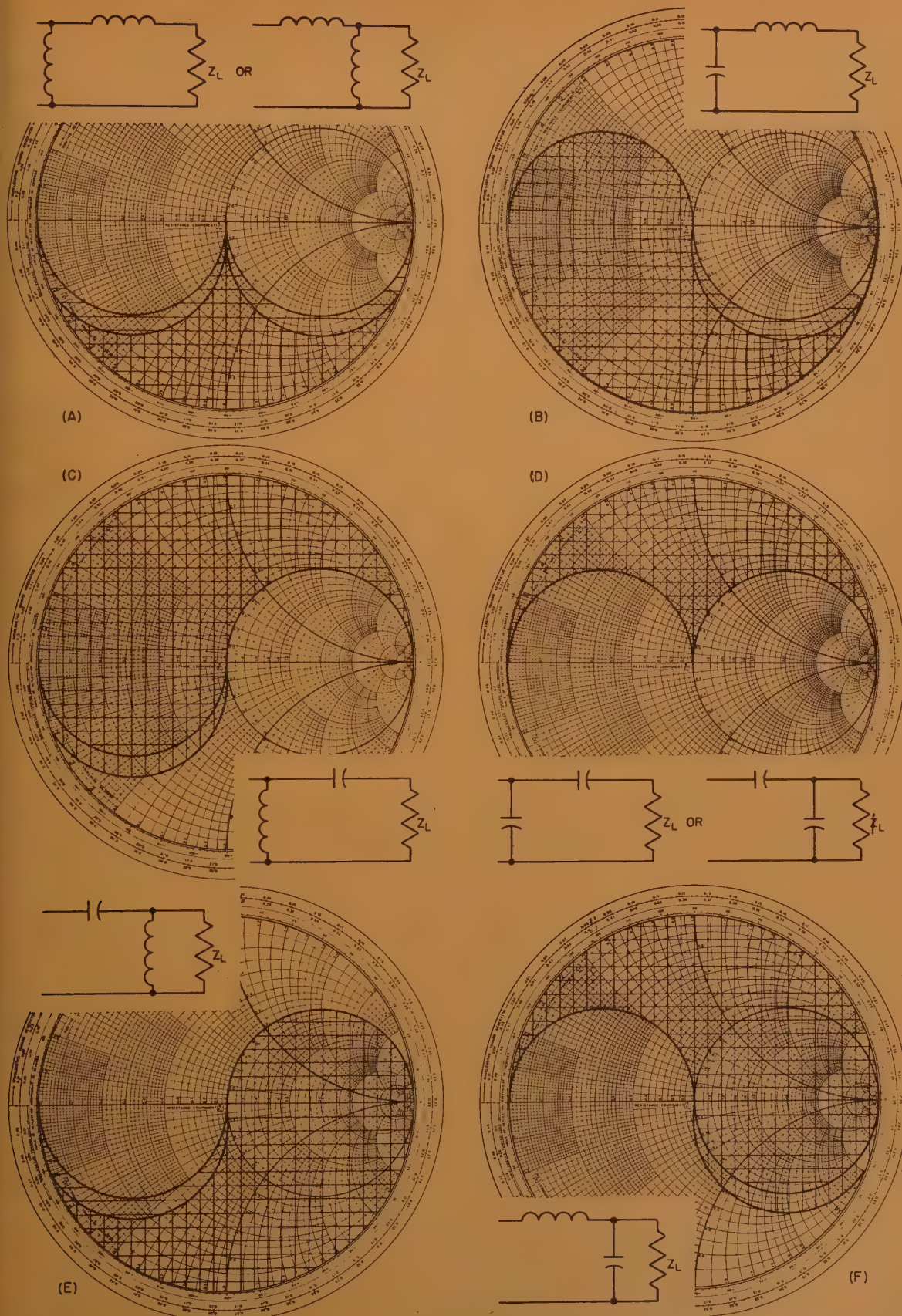


FIG. 2—For each network, horizontally shaded areas on accompanying Smith chart show impedances which may be matched with lossless reactance. Vertically shaded areas may be matched with reactances for which $\tan \theta = 0.2$

GAIN CHART FOR TRANSISTORS

SUMMARY—Graphical approach gives quick approximation of gain to be expected from grounded-emitter and grounded-collector amplifiers as frequency and transistor parameters are varied

By **GEORGE H. MYERS**

DESIGNING transistor amplifiers involves calculating the gain as both the operating frequency and the transistor parameters vary. Use of a new

design chart that eliminates calculations in most cases is explained separately for grounded-emitter and grounded-collector amplifiers.

For a grounded-emitter amplifier, the chart shown in Fig. 1 uses the approximation that the current gain of such an amplifier

(the ratio of collector current to base current) is given by

$$G = i_c/i_b = \frac{\alpha}{1 - \alpha} \quad (1)$$

The frequency dependence of α is customarily taken as

$$\alpha = \frac{\alpha_o}{1 + jf/f_o} \quad (2)$$

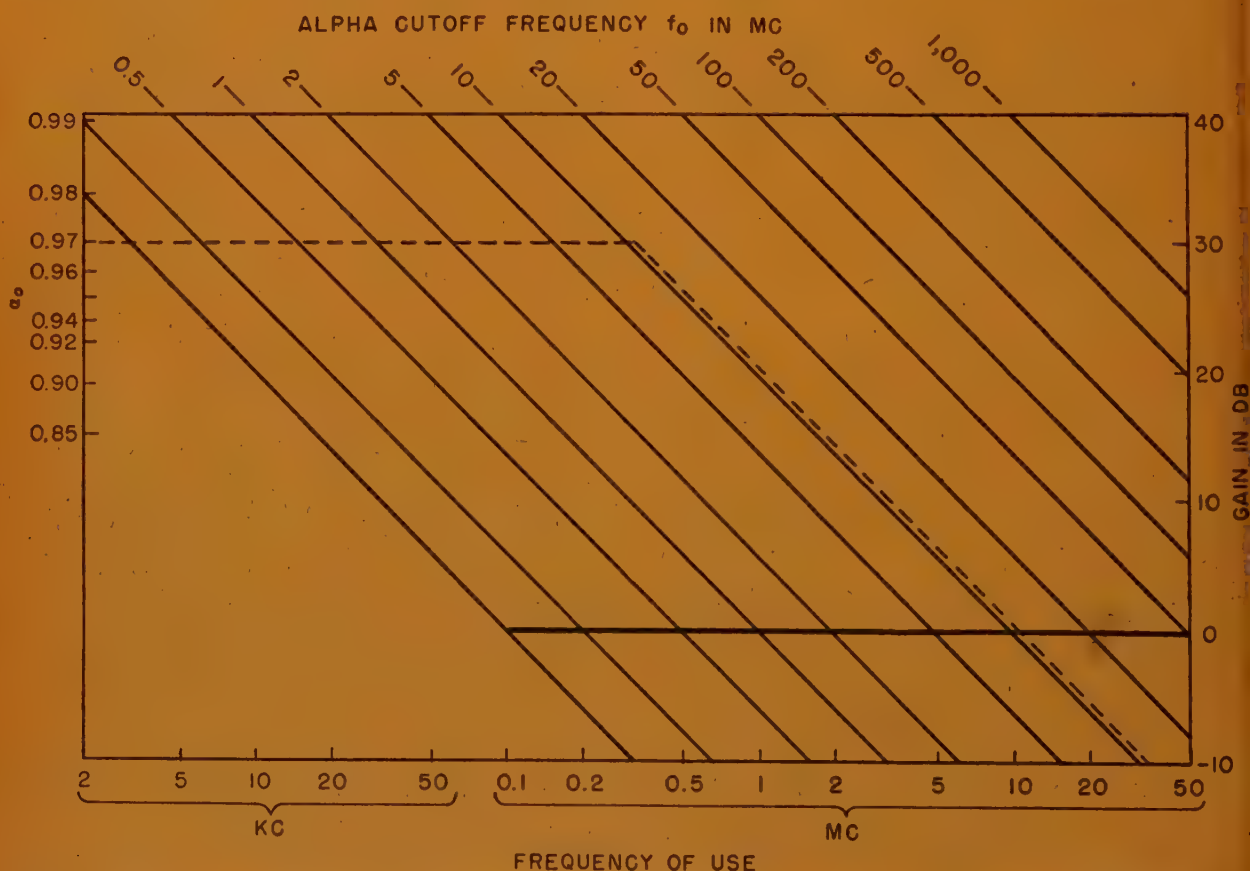


FIG. 1—Values of α_o and alpha-cutoff frequency determine amplifier gain as a function of operating frequency

AMPLIFIERS

The low-frequency value of α is α_0 ; f_0 is the alpha-cutoff frequency. Figure 2A shows a typical grounded-emitter amplifier with the currents indicated.

If Eq. 2 is substituted in Eq. 1, the gain becomes

$$G = \frac{\alpha_0}{(1 - \alpha_0) + jf/f_0} \quad (3)$$

For low frequencies, the gain is substantially independent of frequency and equal to $\alpha_0/(1 - \alpha_0)$. For frequencies greater than $(1 - \alpha_0)f_0$, the gain tends to fall off with frequency at the rate of 6 db per octave (or inversely proportional to frequency). This is the same frequency dependence as that of a low-pass R-C circuit followed by an amplifier, where the amplifier has a gain of $\alpha_0/(1 - \alpha_0)$ and the R-C circuit has a cutoff frequency of $(1 - \alpha_0)f_0$.

Gain-Frequency

The design chart gives the asymptotic gain-frequency curve—the gain is assumed to be constant at its low-frequency value up to a frequency of $(1 - \alpha_0)f_0$ and to decrease at the rate of 6 db per octave of frequency for all higher frequencies. This asymptotic characteristic is the one shown on reactance charts and is usually employed in servomechanism and feedback amplifier design. A simple correction is necessary to make the asymptotic characteristic exact.

For a transistor with an α_0 of 0.97 and an f_0 of 10 mc, a horizontal line is drawn starting at 0.97 on the α_0 scale until the diagonal line corresponding to an alpha-cutoff frequency of 10 megacycles is reached. The diagonal line is then followed downward. On Fig. 1 this example is indicated by the dotted line, which shows the gain-frequency curve for this transistor.

Gain is read in decibels on the scale at the right and frequency is read on the bottom scale. Thus, this transistor has a gain of 30.1 db at 10 kc but at 1 mc

the gain is down to 19.6 db; at 20 mc, the gain is only -6 db. For values of α_0 and f_0 not on the chart, it is necessary to interpolate.

Only a slight modification of this procedure is required to make the chart work for a grounded-collector amplifier (Fig. 2B). The current gain of the grounded-collector amplifier is approximately

$$G = i_c/i_b = \frac{1}{1 - \alpha} \quad (4)$$

Using the Eq. 2 to determine how α varies with frequency, the gain reduces to

$$G = \frac{1 + jf/f_0}{(1 - \alpha_0) + jf/f_0} \quad (5)$$

The grounded-collector amplifier has a low-frequency gain of $1/(1 - \alpha_0)$, which is nearly equal to that of the grounded-emitter amplifier. Between frequencies of $(1 - \alpha_0)f_0$ and f_0 the gain decreases at 6 db per octave, like the gain of the grounded-emitter amplifier but after the alpha-cutoff frequency is reached the gain is constant at 0 db. The zero-decibel line of the chart has been made heavy and all diagonal lines intersect this line at a frequency equal to their alpha-cutoff frequency.

The gain for the transistor with α_0 equal to 0.97 and an f_0 of 10 mc but connected in the grounded-collector circuit follows the dotted line in Fig. 1 until the dotted line intersects the heavy line and then follows the heavy line. This transistor as a grounded-collector amplifier still has a gain of 30.1 db at 10 kc and a gain of 19.6 db at 1 megacycle but at 20 mc the gain is about 0 db.

A slight error is made in using the chart for the grounded-collector amplifier, since the low-frequency grounded-collector gain is $1/(1 - \alpha_0)$ not $\alpha_0/(1 - \alpha_0)$, but this introduces an error of only 1.4 db when α_0 equals 0.85

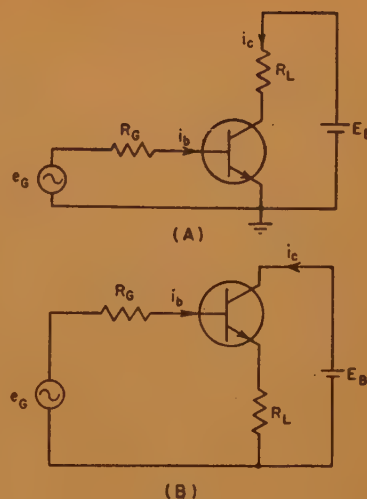


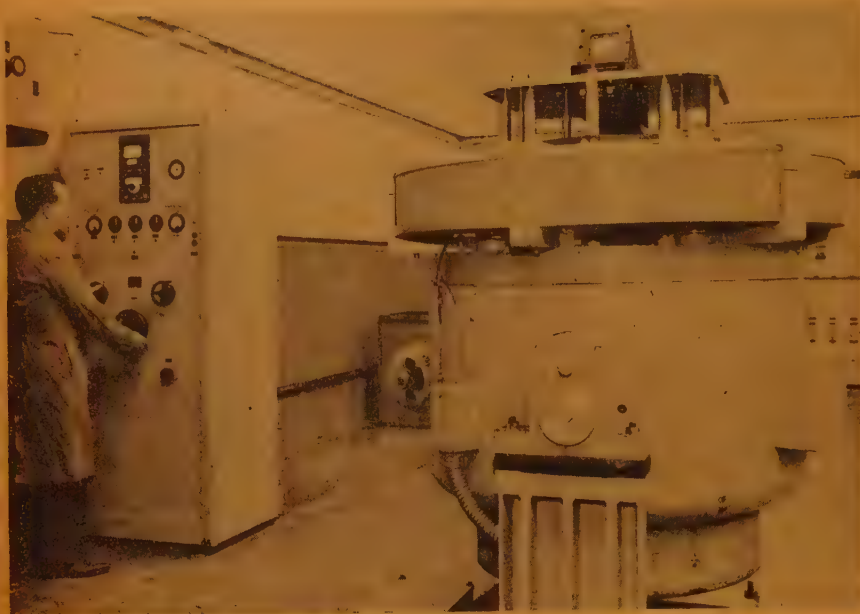
FIG. 2—Connections for transistor grounded-emitter (A) and grounded-collector (B) amplifiers

and is less for all higher values of α_0 .

The chart of Fig. 1 is only approximately correct, even for a grounded-emitter amplifier. A horizontal line corresponding to a value of α_0 should intersect a diagonal line corresponding to a particular value of f_0 at a frequency equal to $(1 - \alpha_0)f_0$. For a constant alpha-cutoff frequency, these intersections will not lie on a straight line having a slope of 6 db per octave. If the actual curve is approximated by a straight line that has this slope, however, the error in gain is about 1 db for an α_0 of 0.85 and is almost negligible for transistors with α_0 greater than 0.90.

Accuracy

Such accuracy is adequate for a chart of this type, since the uncertainty in the values of the transistor parameters will probably introduce more error than the chart. For transistors with values of alpha above 0.95, where alpha may be known to three significant figures, the accuracy of the chart improves. For values of α_0 below 0.85 the error increases so fast that the chart loses its value in this region.



Vibration testing table in vertical position with electronic gear under test mounted on top

CHECKLIST FOR HIGH VIBRATION

- Chassis—**
 - Low center of gravity
 - Rigid construction
 - Ductile material where possible
- Capacitors—**
 - Use axial lead types
- Resistors—**
 - Ferrule clips for larger sizes
- Transformers—**
 - Mounting studs attached to core
- Meters—**
 - Rubber grommet mounting
 - Leads slack
- Wires—**
 - Flexible mounted components:
 - leads slack
 - Rigid mounted components:
 - leads tight

SUMMARY—Techniques of chassis design, component placement and testing methods to help electronic equipment attain maximum reliability in aircraft and missile applications. Proper selection and design of components contributes to reliability under high vibration conditions

ONE most important consideration for airborne electronic equipment is the design of the mechanical chassis or supporting structure. It has to be light in weight, minimum in size, yet able to maintain good mechanical strength.

A good design should have a center of gravity as close to the mounting surface as possible to help reduce vibration amplification caused by coupling modes of vibration.

The chassis must be rigid to maintain the natural frequencies of vibration above the testing frequency range as resonant points subject the structure to high repeated loadings. Supporting members can be made rigid by increasing thickness, flanging the ends, changing the geometry of the

structure or by ribbing the surfaces as shown in one of the photographs. Use of gussets and the proper location of stiffening members also aid in reducing flexibility.

Figure 1 shows an amplification curve obtained on an existing unit. High transmissibility was experienced at the resonant point.

Component Selection

Capacitors should be mounted to prevent relative motion between the leads and body. As an example, use of a 0.02- μ f disk type capacitor in one application resulted in broken leads during vibration. By the nature of its design, as shown in Fig. 2A, this capacitor caused a cantilever action. This action was eliminated by changing the leads so they were mounted axially

as in Fig. 2B, thus removing the cantilever effect and eliminating the large relative motion that existed during vibration.

Transformers that have mounting studs attached directly to the iron core are generally preferable. Studs mounted to a relatively weak housing can be pulled away by high vibration forces. If the mounting bolts are secured to the core, the large internal forces are removed from the housing.

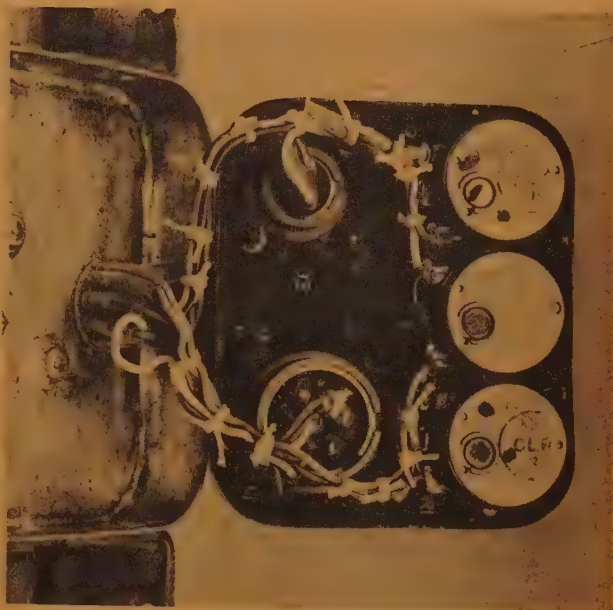
Ruggedized meters are desirable to withstand vibration forces. Use of rubber grommets at the meter mounting studs will result in a low resonant frequency of the meter. Care should be taken to attach leads to the terminals with sufficient slack to avoid wire breakage.

Large resistors mounted in fer-

EQUIPMENT FOR VIBRATION



Chassis rigidity is increased by use of dimpled surface



Tying wires prevents build-up of vibrations in any one lead

By SALVATORE P. MERCURIO, Jr. and MICHAEL BELBY

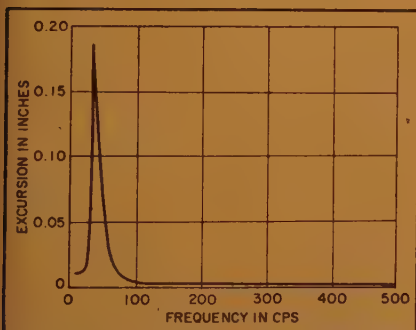


FIG. 1—High transmission of vibration in the 31-cps region as measured on chassis under test on vibration table

rule clips should be provided with spring locks to ensure stability during vibration.

Wire breakage creates a major problem in design. When the component is mounted so motion can take place because of isolation, sufficient wire slack should be provided. One of the photographs shows use of cord to secure a group of wires to prevent build-up of vibration in any one of them. If the component is mounted solidly, so motion cannot take place, leads should not have slack.

Excessive heating of wire during

soldering should be avoided. Heat causes brittleness and produces low fatigue life.

Crystals

Crystals have been mechanically redesigned to meet vibration requirements.

For example, crystals in the range of 244 to 428 kc were selected at random and subjected to a vibration cycle of five to 500 cps at 2 g maximum. The exterior crystal cans were removed so the internal parts could be examined under vibration with a stroboscope.

All crystals had severe resonant points. The lower rated crystals experienced mechanical failure at the joining point of the crystal quartz leads and the supporting wire mounting.

The failures were remedied by increasing the wire size, for greater support, and eliminating several sharp bends. Figure 3 illustrates the change that was incorporated. The ruggedized crystals had no resonant point within the 500-cycle range.

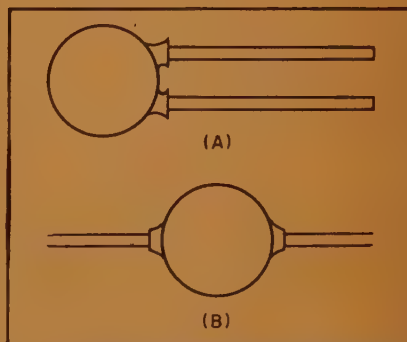


FIG. 2—Side-mounting of disk capacitor (A) permits high vibration. Axial mounting (B) provides more rigid support

Ruggedized tubes are being made that are capable of meeting higher vibration requirements. However, it is of little value to ruggedize a tube based on general vibration requirements if the vibration conditions are not controlled in the structure. A tube may be designed for a maximum excursion of 0.010 inch at five to 500 cps. If this tube is placed on a flexible member, the resulting excursion at resonance may be two to four times as great.

Tube failure seldom occurs be-

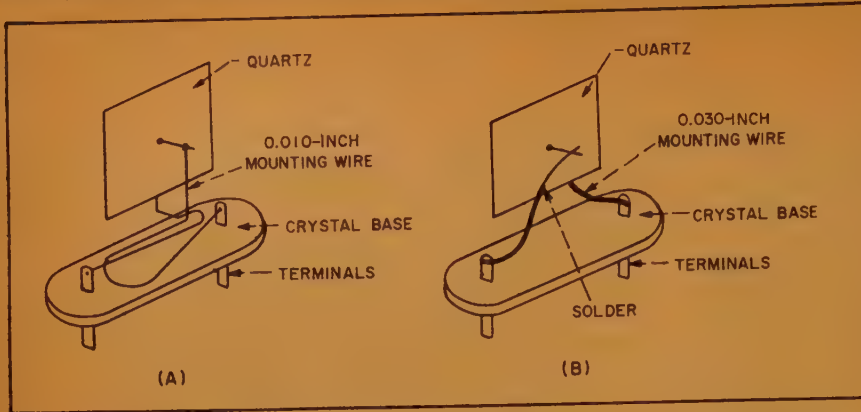


FIG. 3—Conventional crystal mounting (A) has lower tolerance to vibration than more rigid mount (B) designed for vibration up to 500 cps

cause the tube is inadequate. If ruggedized tubes are used with a good choice of tube location, a firm clamping system and a good chassis and supporting structure, failures can be reduced sharply.

Fastening Devices

Components and subassemblies must be made accessible for ease in repair and maintenance and must be firmly attached to prevent imposing any great amplification of vibration forces.

Proper fasteners must be selected to obtain maximum use. Where subassemblies are attached permanently and removal is not a design requirement, rivets are useful. Rivets fastened by machine provide a more uniform tension than screws or bolts fastened by an individual assembler.

Where assemblies or components are to be mounted so they may be removed, screws are often used. Lock washers should always be used in conjunction with screws. The split ring-lock washer, in particular, was found to be satisfactory because impact loading during vibration does not cause the adjacent soft metal, such as aluminum, to deform washer.

Use of quick disconnects has the advantage that a faulty component can quickly be removed and a new one replaced. However, much care must be taken so the unit does not become overloaded by the use of improper quick-disconnect fasteners.

It is advisable to use ductile materials when possible. When design demands the use of brittle materials proper isolation should be

provided to prevent failures under impact loadings.

Vibration Evaluation Testing

There are a number of points to be considered when conducting vibration evaluation tests on airborne equipment.

Testing facilities should be checked to determine their accuracy. This includes checking the vibration machine for levelness and resonance in the supporting table and calibrating the velocity pickups, accelerometers and other testing meters. The vibration machine shown in the photograph can be swung through 90 degrees. It has a frequency range from five to 500 cps.

Fixtures used to mount the equipment should have a center of gravity coinciding with the center line of the table. If this is not done, the equipment mounted on the fixture may be subjected to additional forces beyond the original test requirements and invalid data will result.

Weight added underneath the fixture, as in Fig. 4, brings the center of gravity of the supporting fixture and mounted unit in line with the center line of the table. Thick aluminum plates are useful in making fixtures, since aluminum has a great relative damping capacity and little elasticity.

Before making a vibration test, each unit should be inspected for electrical and mechanical accuracy and critical components tested to determine ability to withstand the vibration requirements. Wiring is then attached to the unit being tested and the vibration machine

is set up for initial vibration conditions. The vibration amplitude is checked by a vibrometer as the test proceeds.

Initial vibration of the assembly should be made at reduced amplitude to locate critical resonance points. From this test the transmissibility ratio of the equipment can be determined. In many cases, due to damping in the system, these resonance points may not be objectionable. However, if the transmissibility is excessive, corrective action must be taken. Usually supporting members are made more rigid by ribbing the surfaces, flanging the members or increasing thickness so unwanted resonance is above the testing frequency range.

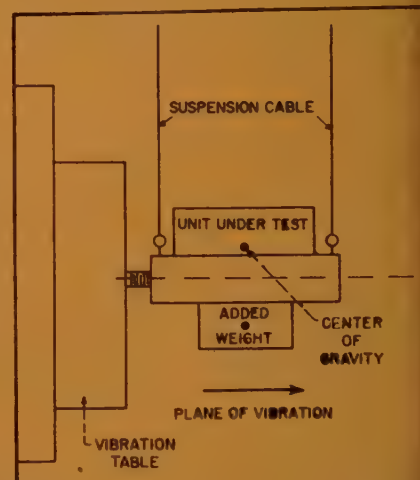


FIG. 4—Adding weight under vibration test mounting will bring center of gravity in line with table center line

A monitoring device which will define the satisfactory electrical operation of the equipment is required. If at all possible, this monitoring device should encompass the complete electrical function on one indicator, such as an oscilloscope.

Recording instruments should be used if adaptable to the particular test. It is also necessary to observe the equipment being tested for any mechanical failures, which might show up in a number of ways. A slight buzzing or an abrupt change in the magnitude or quality of the vibration noise being generated by the equipment in test are common examples of failure symptoms.

COMPILED BY THE RESEARCH DEPARTMENT OF ELECTRONICS

product listings

OF THE 1957-1958

electronics

BUYERS' GUIDE

In the preparation of ELECTRONICS BUYERS' GUIDE, every effort was made to insure the completeness and accuracy of the Product Listings according to the information provided by the manufacturers.

The listings were compiled from information provided by more than 3,000 companies manufacturing electronic or allied products and include all products that will be available in the coming year, insofar as the companies themselves can determine. The completeness and accuracy of the listings are entirely due to the helpful cooperation of these manufacturers.

Products are arranged and indexed in a simple, easy-to-find, telephone-book style. Names of Manufacturers who are advertisers in the BUYERS' GUIDE are bold-faced in the listings and page numbers of their advertisements are shown. This makes it possible to obtain complete information on products quickly and easily by referring to the advertising pages.

Several new product headings have been added. Due to lack of sufficient information, only manufacturers who were known are included under these new headings. Listings include an index of registered trade names and an alphabetical listing of all companies engaged in the manufacture of electronic components, complete equipment or allied products.

NOTE: This punch-out tab is for your convenience in locating the Product Listings in this issue. Simply push out and fold under. It will then serve as a tab mark to indicate where the listings start.

PUSH OUT
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Alphabetical Listings Of All COMPONENTS—COMPLETE UNITS—ALLIED PRODUCTS Used in Electronic Equipment for All Purposes

The complete electronic and allied product lines of more than three thousand manufacturers are arranged and indexed in a simple, easy-to-use, telephone book style in the following listings.

Products are listed alphabetically by generic names followed by descriptive or type names where necessary, as **ADAPTERS—Battery**.

For example: To find the manufacturers of ionization tubes you would turn to the generic product heading **TUBES** and listed alphabetically under that you would find **TUBES—Ionization**.

The only exceptions are **INSULATING COMPOUNDS; INSULATION MATERIALS; INSULATION PARTS; METALS; PLASTIC MATERIALS; and TUBE PARTS**. Products falling in these classifications are arranged alphabetically under those six headings. A breakdown of electrical measuring

instruments is listed under the generic product heading **INSTRUMENTS, ELECTRICAL MEASURING** and cross-indexed. The same holds true for **MICROWAVE ACCESSORIES**.

Cross references are provided wherever necessary to cover names, other than the standard ones, that are sometimes used.

Manufacturers under each product heading are also arranged alphabetically. Those companies who are advertisers in this issue are bold-faced and the page numbers of their advertisements given to permit quick and easy reference for the necessary technical data.

In compiling the listings for this year's **ELECTRONICS BUYERS' GUIDE** extreme care has been taken to ascertain those products which are in production, or available within a reasonable time and, unrestricted for general industrial use.

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Miller Instrument, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
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MINNEAPOLIS-HONEYWELL, BOSTON DIV., 1400 Soldiers Field Rd., Boston 15, Mass. ADV. PG. 445.
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Servomechanisms, Inc., 12500 Aviation Blvd., Hawthorne, Calif.
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Aerolite Electronics Corp., 507 26th St., Union City, N. J.
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General Electric Co., Silicone Products Dept., Waterford, N. Y.
Goodrich Aviation Products, B. F., Div. of B. F. Goodrich Co., Akron, Ohio.
Goodyear Tire & Rubber Co., Chemical Div., 1144 E. Market St., Akron 16, Ohio.
Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
Johns-Manville, 22 E. 40th St., New York 16, N. Y.
Lord Mfg. Co., 1635 W. 12th St., Erie, Pa.
Louis Laboratories, 1947 Broadway, New York 23, N. Y.
Maas & Waldstein Co., 2121 McCarter Highway, Newark 4, N. J.
Marbon Chemical Div. of Borg-Warner Corp., 1926 W. Tenth Ave., Gary, Ind.
Monsanto Chemical Co., Plastics Div., Springfield, Mass.
Moyen Co., C. P., 8157 Monticello Ave., Skokie, Ill.
Mystik Adhesive Products Co., 2635 N. Kildare, Chicago, Ill.
Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.
Paisley Products, Inc., 630 W. 51st St., New York 19, N. Y.
Philadelphia Quartz Co., 1146 K Public Ledger Bldg, Philadelphia 6, Pa.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
Reichhold Chemicals, Inc., 525 Broadway, White Plains, N. Y.
Rubber & Asbestos Corp., 225 Belleville Ave., Bloomfield, N. J.
Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
Terrel Corp., 19 Lane St., Waltham 54, Mass.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
UBS Chemical Corp., 491 Main St., Cambridge 42, Mass.
U. S. RUBBER CO., 1230 Avenue of the Americas, New York 20, N. Y. ADV. PG. 119.
Vorac Co., 147 Meadow Rd., Rutherford, N. J.
Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 614.

ADHESIVES—Waterproof & Corrosion Proof Compounds

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
Ambroid Co., Weymouth 88, Mass.
American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
Armstrong Cork Co., Lancaster, Pa.
Armstrong Products Co., P. O. Box 1-EB, Warsaw, Ind.
Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
Borden Co., The Chemical Div., 350 Madison Ave., New York 17, N. Y.
duPont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
Ellanar Chemical Co., 2308 Oakton St., Evanston, Ill.
Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONICS DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
Johns-Manville, 22 E. 40th St., New York 16, N. Y.
Koppers Co., Inc., Koppers Bldg., Pittsburgh 19, Pa.
Louis Laboratories, 1947 Broadway, New York 23, N. Y.
Mystik Adhesive Products Co., 2635 N. Kildare, Chicago, Ill.
Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.
Paisley Products, Inc., 630 W. 51st St., New York 19, N. Y.
Silicones Div., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
Stevenson Bro. & Co., 110 Race St., Philadelphia 6, Pa.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
U. S. RUBBER CO., 1230 Avenue of the Americas, New York 20, N. Y. ADV. PG. 119.
U. S. Stoneware Co., The Akron 9, Ohio.
Vorac Co., 147 Meadow Rd., Rutherford, N. J.

AGING RACKS

See **RACKS—Aging for Vacuum Tubes & Transistors**

AIR CLEANERS—Electronic

Air Control Installations Ltd., Ruislip, Middlesex, England.

1957-1958 LISTINGS

Lennard Co., Inc., P. M., P. O. Box 56, Village Station, New York 14, N. Y.
Master Appliance Mfg. Co., Fourth & Ontario Sts., Racine, Wis.
Minneapolis-Honeywell Regulator Co., Aeronautical Division, 2600 Ridgway Rd., Minneapolis 13, Minn.
Radex Corp., 2076 N. Elston Ave., Chicago 14, Ill.
Trilon, Inc., 1000 Island Ave., McKees Rocks, Pa.

ALARM SYSTEMS

See **CONTROLS, Alarm Systems**

ALTERNATORS

See **CONVERTERS and INVERTERS**

ALUMINUM OXIDE

See **INSULATION MATERIALS**

AMMETERS

AMMETERS—RF

See **INSTRUMENTS—Electrical Measuring**

AMPLIFIERS—Audio Frequency

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
Acme Electronix Div. of NEA Service, Inc., W. Third Lakeside, Cleveland 13, Ohio.
ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 56.
Allegany Instrument Co., Inc., 1091 Wills Mount, Cumberland, Md.
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
AMPEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 285.
Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.
Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
Audiobox, Inc., 123 Worcester St., Boston 18, Mass.
Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 159.
Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bellare Electronics, Inc., 62 White St., Red Bank, N. J.
Berliant Concertone-Audio Div. of American Electronic, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
Berndt-Bach, Inc., Auricon Div., 6924 Romaine, Hollywood 38, Calif.
Bliss Electronic Corp., Box 366, Sussex, N. J.
Bogen Co., Inc., David, P. O. Box 500, Paramus, N. Y.
British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
BROWNING LABORATORIES, INC., Main St., Wincor, Mass. ADV. PG. 614.
Bruehl & Kjaer, Naerum, Denmark.
Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
Collins Radio Co., Cedar Rapids, Iowa.
COLORTONE ELECTRONICS, INC., 200 Frank St., Hicksville, N. Y. ADV. PG. 532.
Decade Instrument Co., Box 153, Caldwell, N. J.
Denson Electronics Corp., Ellington, Conn.
Dukane Corp., St. Charles, Ill.
Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
Electronic Instrument Co., Inc., 784 Withers St., Brooklyn 11, N. Y.
Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
Electronic Systems Engineering Co., 903 Cravens Blvd., Oklahoma City, Okla.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 171.
Fairchild Recording Equipment Co., 10-40 45th St., Long Island City 1, N. Y.
Fidelity Amplifier Co., 703 Willow St., Chicago 14, Ill.
Fisher Radio Corp., 21-21 Forty-Fourth Drive, Long Island City 1, N. Y.
Gates Radio Co., Quincy, Ill.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.

General Electronics Corp., 17 Madison Ave., Montgomery 4, Ala.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

Gonset Co., 801 S. Main St., Burbank, Calif.

Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.

Gotham Audio Development Corp., 2 W. 46th St., New York 36, N. Y.

Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

I.D.E.A. Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.

Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.

International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.

Johnson Co., E. F., Waseca, Minn.

Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.

KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.

KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.

KROHN-HITE CORP., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 82, 83.

L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.

Lake Mfg. Co., 2323 Chestnut St., Oakland 7, Calif.

Langevin Mfg. Corp., 47-37 Austel Place, Long Island City 1, N. Y.

Laurehk Radio Mfg. Co., 3931 S. Wayne Rd., Wayne, Mich.

Leonard Electric Products Co., Inc., 67 Thirty-Fourth St., Brooklyn 32, N. Y.

Lesia, Via Bergamo 21, Milan, Italy.

LING ELECTRONICS, INC., 5120 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.

Lyman Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.

M F ELECTRONICS, 122 E. 25th St., New York 10, N. Y. ADV. PG. 512.

M. P. Engineering Co., Fairfield 3, Conn.

McIntosh Laboratory Inc., 2 Chambers St., Binghamton, N. Y.

Mack Electronics, A Div. of Mack Trucks, Inc., Plainfield, N. J.

Magnadyne Co., 84 S. Water St., Port Chester, N. Y.

Magnasyn Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.

Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.

Magnecond, Inc., 1101 S. Kilbourn Ave., Chicago 24, Ill.

Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.

Maurer, Inc., J. A., 37-01 31st St., Long Island City 1, N. Y.

National Aircraft Corp., 3411 Tulare St., Burbank, Calif.

National Co., Inc., 61 Sherman St., Malden 48, Mass.

Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.

Nelson Instrument Co., 607 Howard St., Evanston, Ill.

Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.

North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.

NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 200-202.

Nortronics Co., Inc., 1015 S. Sixth St., Minneapolis 4, Minn.

O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.

PARAPLEGIS MFG. CO., INC., 10068 Franklin Ave., Franklin Park, Ill. ADV. PG. 416.

Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.

Peer, Inc., Benton Harbor, Mich.

Pennsylvania Testing Lab., Inc., Doylestown, Pa.

Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

Precision Electronics Inc., 9101 King St., Franklin Park, Ill.

Precision Radiation Instruments, Inc., 4223 W. Jefferson Blvd., Los Angeles 16, Calif.

Pulse Techniques, Inc., 1411 Palisade Ave., West Englewood, N. J.

Q.R.K. Electronic Products, 445 N. Circle Drive, Fresno, Calif.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.

Radio Craftsmen, Inc., 4223 W. Jefferson Blvd., Los Angeles 16, Calif.

Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.

Remler Company, 2101 Bryant St., San Francisco 10, Calif.

Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.

Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.

Rumple, Inc., 15026 Oxnard St., Van Nuys, Calif.

Sargent-Raymont Co., The, 4926-28 E. 12th St., Oakland 1, Calif.

Scott, Inc., Herman Hosmer, 385 Putnam Ave., Cambridge 39, Mass.

Seeburg, J. P., A. Div. of Fort Pitt Industries, Inc., 1500 N. Dayton St., Chicago 22, Ill.

Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.

SONEX, INC., 73 S. State Rd., Upper Darby, Pa. ADV. PG. 664.

SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rr., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.

Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.

Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.

Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.

TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. ADV. PG. 661.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia 4, Pa.

Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.

Telephonics Corp., Park Ave., Huntington, N. Y.

Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.

Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.

Transistor Components Co., 301 Oakwood Ave., East Aurora, N. Y.

Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.

Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.

WALLSON ASSOCIATES, LTD., 963 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 691.

Webster Electric Co., 1900 Clark St., Racine, Wis.

Western Electro-Acoustic Lab., 11789 San Vicente Blvd., Los Angeles 49, Calif.

Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

Wheeler Insulated Wire Co., Inc., The, Div. of the Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

AMPLIFIERS—Audio Input Systems

Acme Electronix Div. of NEA Service, Inc., West Third & Lakeside, Cleveland 13, Ohio.

Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.

AMPEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 285.

Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.

Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.

Berlant Concertone-Audio Div. of American Electronics Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.

Bogen Co., Inc., David, P. O. Box 500 Paramus, N. J.

BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.

Dukane Corp., St. Charles, Ill.

Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.

Electronic Systems Engineering Co., 903 Cravens Bldg., Oklahoma City, Okla.

ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.

Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.

Fisher Radio Corp., 21-21 Forty Fourth Drive, Long Island City 1, N. Y.

Gates Radio Co., Quincy, Ill.

General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.

Holl Audio Inc., 5014 N. Encinita Ave., Temple City, Calif.

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.

International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.

Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.

Langevin Mfg. Corp., 47-37 Austel Place, Long Island City 1, N. Y.

McIntosh Laboratory Inc., 2 Chambers St., Binghamton, N. Y.

Mack Electronics, A Div. of Mack Trucks, Inc., Plainfield, N. J.

Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.

National Aircraft Corp., 3411 Tulare St., Burbank, Calif.

Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.

Nortronics Co., Inc., 1015 S. Sixth St., Minneapolis 4, Minn.

O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.

Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.

Peer, Inc., Benton Harbor, Mich.

Pickard & Burns, Inc., Needham, Mass.

Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.

Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.

Pulse Techniques, Inc., 1411 Palisade Ave., West Englewood, N. J.

Q.R.K. Electronic Products, 445 N. Circle Drive, Fresno, Calif.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.

Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.

Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.

Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.

Rumple, Inc., 15026 Oxnard St., Van Nuys, Calif.

Scott, Inc., Herman Hosmer, 385 Putnam Ave., Cambridge 39, Mass.

Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.

SONEX, INC., 73 S. State Rd., Upper Darby, Pa. ADV. PG. 664.

Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.

Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. ADV. PG. 661.

Telephonics Corp., Park Ave., Huntington, N. Y.

Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.

Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

Wingarten Electronic Labs., Inc., 7556 Melrose Ave., Los Angeles 46, Calif.

Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

AMPLIFIERS—Audio Subminiature

AIRCRAFT RADIO CORP., Bonton, N. J. ADV. PG. 495.

Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.

Aurex Corp., 1117 N. Franklin St., Chicago 10, Ill.

Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

Berkshire Laboratories, 580 Bank Village, Greenville, N. H.

Buffalo Electronics Corp., 37 Franklin St., Buffalo 2, N. Y.

Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.

Decade Instrument Co., Box 153, Caldwell, N. J.

DOTY ACOUSTICAL ELECTRONIC LABS., INC., 431 Broome St., New York 13, N. Y. ADV. PG. 676.

Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.

Electro-Mechanical Research Inc., Ridgefield, Conn.

EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 233-235.

General Electronics Corp., 17 Madison Ave., Montgomery 4, Ala.

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.

Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.

Keystone Products Co., 904-6 23rd St., Union City, N. J.

Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.

Langevin Mfg. Corp., 47-37 Austel Place, Long Island City 1, N. Y.

Laurehk Radio Mfg. Co., 3931 S. Wayne Rd., Wayne, Mich.

Loge Sound Engineers, J. M., 2171 W. Washington Blvd., Los Angeles 18, Calif.

Magnasyn Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.

Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.

National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill.

Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.

Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.

Production Research Corp., Thornwood, N. Y.

RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.

Remler Company, 2101 Bryant St., San Francisco 10, Calif.

RHEEM ELECTRONICS DIVISION, 7777 Industry Ave., Rivera, Calif. ADV. PG. 654.

Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.

Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.

Rumple, Inc., 15026 Oxnard St., Van Nuys, Calif.

Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
Transformer Specialty Co., Inc., Bala Cynwyd, Pa.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

AMPLIFIERS—d-c

Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 19, Ohio.
ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300.
Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
Atlas Coll. Inc., 63 Main St., Ansonia, Conn.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Belock Instrument Corp., 111-01 14th Ave., College Point, N. Y.
Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
Dubrow Development Co., 235B Penn St., Burlington, N. J.
DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
Dynamics Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
Edin Co., Inc., 207 Main St., Worcester, Mass.
Electro-Mechanical Research, Inc., Ridgefield, Conn.
Electronic Associates, Inc., Long Branch, N. J.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
ELECTRONICS COMPUTER CORP., 6191 Ridge Ave., Philadelphia 28, Pa. ADV. PG. 635.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 233-235.
Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
Feedback Controls, Inc., 899 Main St., Waltham 54, Mass.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
GPS Instrument Co., Inc., 811 Boylston St., Boston 16, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
General Electronics Corp., 17 Madison Ave., Montgomery 4, Ala.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
Hallamore Electronics Co., 8352 Brookhurst Ave., Anaheim, Calif.
Hanover Developments, 401 E. 74th St., New York 21, N. Y.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
Kelvin & Hughes Ltd., New North Rd., Barking, Essex, England.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Village Rd., San Diego 12, Calif. ADV. PG. 121-123.
Kistler Instrument Corp., 15 Webster St., North Tonawanda, N. Y.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.
Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Mid-Century Instrument Corp., 611 Broadway, New York 12, N. Y.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
MINNEAPOLIS-HONEYWELL, BOSTON DIV., 1400 Soldiers Field Rd., Boston 15, Mass. ADV. PG. 445.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Modern Industries, Inc., 2601 Colorado Ave., Santa Monica, Calif.
Moulic Specialties Co., 1007 W. Washington St., Bloomington, Ill.
National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
Pegasus Laboratories, Inc., 3692 Eleven Mile Rd., Berkeley, Mich.
Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.
Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
Production Research Corp., Thornwood, N. Y.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
Research Electronics Laboratories, Roslyn, Pa.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
Servo-Tek Products Co., Inc., 1086 Goffie Rd., Hawthorne, N. J.
Southern Instruments Ltd., Computer Div., Frimley Rd., Camberley, Surrey.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Tektronix, Inc., P. O. Box 831, Portland 7, Ore.
Telephonics Corp., Park Ave., Huntington, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.
UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRANSISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. ADV. PG. 548.
Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.
White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.

AMPLIFIERS—Decade

ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 159.
Burr-Brown Research Corp., Route 4, Box 139, Tucson, Ariz.
Endevco Corp., 161 E. California St., Pasadena, Calif.
Fairchild Engine & Airplane Corp., Guided Missiles Div., Wyandanch, N. Y.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Telephonics Corp., Park Ave., Huntington, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.

AMPLIFIERS—Differential

American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
Berkshire Laboratories, 580 Bank Village, Greenville, N. H.
BOEHME, INC., H. O., 915 Broadway, New York 10, N. Y. ADV. PG. 556.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
Electronic Associates, Inc., Long Branch, N. J.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
GPS Instrument Co., Inc., 811 Boylston St., Boston 16, Mass.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
Otis Elevator Co., Electronics Div., 35 Ryerson St., Brooklyn 5, N. Y.
Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
Servonics, Inc., 822 N. Henry St., Alexandria, Va.
Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
Tektronix, Inc., P. O. Box 831, Portland 7, Ore.
Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia 4, Pa.
Telephonics Corp., Park Ave., Huntington, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.

AMPLIFIERS—f-m & a-m Antenna

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
Aerolite Electronics Corp., 507 26th St., Union City, N. J.
Community Engineering Corp., Box 824, State College, Pa.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 666.
Q.R.K. Electronic Products, 445 N. Circle Drive, Fresno 4, Calif.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.

AMPLIFIERS—Facsimile

Acme Teletronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
 Muirhead Co., Ltd., Beckenham, Kent, England.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.

AMPLIFIERS—i-f

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
 Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
ANDERSEN LABORATORIES, INC., 39 Talcott Rd., West Hartford 10, Conn. ADV. PG. 486.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
 Denson Electronics Corp., Ellington, Conn.
 Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INSTRUMENTS FOR INDUSTRY, INC., 149 Glen Cove Rd., Mineola, N. Y. ADV. PG. 656.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Jowill Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
LEL INC., 380 Oak St., Copiague, N. Y. ADV. PG. 666.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Maxson Instruments Div. of the W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
 Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Teletron Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.

AMPLIFIERS—Keying

BARBER LABS., ALFRED W., 32-40 Francis Lewis Blvd., Flushing 58, N. Y. ADV. PG. 660.
BOEHME, INC., H. O., 915 Broadway, New York 10, N. Y. ADV. PG. 556.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.

AMPLIFIERS—Klystron AFC

BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 174, 175, 411.

AMPLIFIERS—Linear

Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
AMERICAN TRADAIR CORP., SUB. OF EKCO ELECTRONICS, LTD., 34-01 30th St., Long Island City 6, N. Y. ADV. PG. 693.
 Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.
 Bruel & Kjaer, Naerum, Denmark.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
 Burr-Brown Research Corp., Route 4, Box 139, Tucson, Ariz.
 Century Electronics & Instruments, Inc., P. O. Box 6216, Pine Station, Tulsa 10, Okla.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
 Daystrom Nuclear Div. of Daystrom, Inc., P. O. Box 437, West Caldwell, N. J.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
 Dynamics Instrumentation Co., Div. of Alberhill Corp., 1118 Mission St., South Pasadena, Calif.
 Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Gonset Co., 810 S. Main St., Burbank, Calif.
HAMNER ELECTRONICS CO., INC., Box 531, Princeton, N. J. ADV. PG. 671.
 Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
 Johnson Co., E. F., Waseca, Minn.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 Nuclear-Chicago Corp., 223 W. Erie St., Chicago 10, Ill.
 Nucleonic Company of America, 196 DeGraw St., Brooklyn 31, N. Y.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
 Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.
 Reed-Curtis Nuclear Industries, Inc., 9459 N. Jefferson Blvd., Culver City, Calif.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
 Technical Associates, 140 W. Providence Ave., Burbank, Calif.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 Tracerlab, Inc., 1601 Trapelo Rd., Waltham 54, Mass.

AMPLIFIERS—Logarithmic

BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
 Audio Instrument Co., Inc., 133E W. 14th St., New York 11, N. Y.
 Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PGS. 478, 479.
 California Technical Industries, 1421 Old County Rd., Belmont, Calif.
CURTIS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
 Daystrom Nuclear Div. of Daystrom, Inc., P. O. Box 437, West Caldwell, N. J.
 Deltcon, Inc., 2905 N. Leithgow St., Philadelphia 33, Pa.
 Electronic Associates, Inc., Long Branch, N. J.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
MOSELEY CO., F. L., 409 N. Fair Oaks, Pasadena 3, Calif. ADV. PG. 572.
 Pickard & Burns, Inc., Needham, Mass.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
 Reed-Curtis Nuclear Industries, Inc., 9459 N. Jefferson Blvd., Culver City, Calif.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Telephonics Corp., Park Ave., Huntington, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PGS. 205-216.

AMPLIFIERS—Magnetic

ACROMAG CO., 22519 Telegraph Rd., Detroit 19, Mich. ADV. PG. 492.
 Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 So. Peck Rd., Monrovia, Calif.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PGS. 297-300.
 American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
 American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
ARNOLD MAGNETICS CORP., 4613 W. Jefferson Blvd., Los Angeles 15, Calif. ADV. PG. 553.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
 Avion Division, ACF Industries, Inc., 11 Park Place, Paramus, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif.
 Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia 23, Pa.
 C. G. S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
CELCO, Island Ave., Mahwah, N. J. ADV. PGS. 138, 139.
CENTRALAB DIV., Globe-Union, Inc., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
CHASE ELECTRONICS INC., 82-31 51st Ave., Elmhurst, N. Y. ADV. PG. 601.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
CHICAGO STANDARD TRANSFORMER CORP., 3521 Addison St., Chicago, Ill. ADV. PGS. 466, 467.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Clifton Mfg. Co., Inc., 20 N. Springfield Rd., Clifton Heights, Pa.
 Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
 Coast Coil Co., 5333 W. Washington Blvd., Los Angeles 16, Calif.
 Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PGS. 113-118.
CURTIS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
D & R, LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. ADV. PG. 698.
 Daystrom Nuclear Div. of Daystrom, Inc., P. O. Box 437, West Caldwell, N. J.
 De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
DETROIT CONTROLS CORP., CONTROL ENGINEERING UNIT, 560 Providence Highway, Norwood, Mass. ADV. PG. 515.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
 Electric Machinery & Equipment Div. of American Electronics, Inc., 2112 N. Chico Ave., El Monte, Calif.
ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 571.
 Engineered Magnetics Div. of Gulton Mfg. Corp., 11818 Teale St., Culver City, Calif.
 Fairfield Engineering Corp., 934 Hope St., Springfield, Conn.
 Feedback Controls, Inc., 899 Main St., Waltham 54, Mass.
 Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J.
GENERAL MAGNETICS, INC., 135 Bloomfield Ave., Bloomfield, N. J. ADV. PG. 426.
Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
Hadley Co., Inc., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif.
Hallamore Electronics Co., 8352 Brookhurst Ave., Anaheim, Calif.
Hanson-Gorill-Brian, Inc., 85 Hazel St., Glen Cove, N. Y.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 410.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 188.
I-T-E CIRCUIT BREAKER CO. SPECIAL PRODUCTS, 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
KEPCO LABS., INC., 131-38 Sanford Ave., Flushing 55, N. Y. ADV. PG. 45-48.
Keystone Products Co., 904-6 23rd St., Union City, N. J.
Kollsman Instrument Corp., Sub. of Standard Coil Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y.
Lee Electric & Mfg. Co., 2806 Clearwater St., Los Angeles 39, Calif.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
Litton Industries of Maryland, Inc., 4910 Calvert Rd., College Park, Md.
McKAY ELECTRIC CO., 19790 Stahelin Ave., Detroit 19, Mich. ADV. PG. 638.
MACARR, INC., 2543 Boston Rd., Bronx 67, N. Y. ADV. PG. 640.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC AMPLIFIERS, INC., 632 Tinton St., New York 55, N. Y. ADV. PG. 389.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.
MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 161-163.
Magnetics Research Co., Cor. Grove St. & E. Post Rd., White Plains, N. Y.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Modern Industries, Inc., 2601 Colorado Ave., Santa Monica, Calif.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
Osborne Electric Co., 712 S. E. Hawthorne, Portland 14, Ore.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
PERKIN ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. ADV. PG. 67.
Plezo Products Co., Whitney St., Sherborn, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 681.
Power Supplies, Inc., 1007 Olive St., Highland, Ill.
Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607.
Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y.
Ransom Research, Box 382, San Pedro, Calif.
Reed-Curtis Nuclear Industries, Inc., 9459 N. Jefferson Blvd., Culver City, Calif.
Regulator Equipment Corp., 100 Pennsylvania Ave., Paterson 3, N. J.
RHEEM ELECTRONICS DIVISION, 7777 Industry Ave., Rivera, Calif. ADV. PG. 654.
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash.

Specialties, Inc., Skunks Misery Rd., Syosset, N. Y.
Sperry Gyroscopic Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
Thompson Products, Inc., Electronics Div., 2196 Clarkwood Ave., Cleveland 3, Ohio.
TOROTEL, INC., 11505 Bellmont Ave., Hickman Mills, Mo. ADV. PG. 539.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24.
Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover
VARI-L CO., INC., P. O. Box 1433, Stamford, Conn. ADV. PG. 608.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
Warren Mfg. Co., Inc., The, Newton Rd., Littleton, Mass.
Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Wheeler Insulated Wire Co., Inc., The, Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

AMPLIFIERS—Medical Instrument

American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
Atlas Coil, Inc., 63 Main St., Ansonia, Conn.
Audivox, Inc., 123 Worcester St., Boston 18, Mass.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Burr-Brown Research Corp., Route 4, Box 139, Tucson, Ariz.
Electro-Medical Lab., Inc., South Woodstock 8, Vt.
Electrodyne Co., Endicott St., Norwood, Mass.
Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah.
Grass Instrument Co., 101 Old Colony Ave., Quincy, Mass.
Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
KIN TEL (Kay Lab), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.
Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
Melody Master Mfg. Co., 2842 N. Cicero Ave., Chicago 41, Ill.
Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo.
Moulic Specialties Co., 1007 W. Washington St., Bloomington, Ill.
Nelson Instrument Co., 607 Howard St., Evanston, Ill.
Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
Photon Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Tektronix, Inc., P. O. Box 831, Portland 7, Ore.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 174, 175, 411.
Videon Electronic Corp., 902 E. Michigan St., Indianapolis 2, Ind.
Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.
WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
Western Radiation Lab., 1107 W. 24th St., Los Angeles 7, Calif.

AMPLIFIERS—Microwave

AMPLIFIERS—Microwave Radar

See MICROWAVE ACCESSORIES

AMPLIFIERS—Musical Instrument

Autocrat Electronics Co., 5024 Elm St., Skokie, Ill.
Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.

Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
SONEX, INC., 73 S. State Rd., Upper Darby, Pa. ADV. PG. 664.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
Valco Mfg. Co., 4700 W. Walton St., Chicago 51, Ill.

AMPLIFIERS—Narrow Band Audio

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
Antilab, 4950 N. High St., Columbus 14, Ohio.
Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Berkshire Laboratories, 580 Bank Village, Greenville, N. H.
Bruel & Kjaer, Naerum, Denmark.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INSTRUMENTS FOR INDUSTRY, INC., 149 Glen Cove Rd., Mineola, N. Y. ADV. PG. 656.
International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
Johnson Co., E. F., Waseca, Minn.
LING ELECTRONICS, INC., 5120 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Telephonics Corp., Park Ave., Huntington, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
WHITE INSTRUMENT LABORATORIES, Box 9006, Allandale Station, Austin 17, Texas. ADV. PG. 501.

AMPLIFIERS—Narrow-Band i-f

APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
Babcock Radio Engineering Co., P. O. Box 3097, Van Nuys, Calif.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 666.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
Telephonics Corp., Park Ave., Huntington, N. Y.
Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.

AMPLIFIERS—Null

Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Delttron, Inc., 2905 N. Leithgow St., Philadelphia 33, Pa.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.

Willivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 Pennsylvania Testing Lab., Inc., Doylestown, Pa.
 Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
 Servonics, Inc., 822 N. Henry St., Alexandria, Va.
 Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PGS. 205-216.

AMPLIFIERS—Operational

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Donner Scientific Co., 888 Galindo St., Concord, Calif.
 Electronic Associates, Inc., Long Branch, N. J.
 Electronic Products Corp., 322 State St., Santa Barbara, Calif.
ELECTRONICS COMPUTER CORP., 6191 Ridge Ave., Philadelphia 28, Pa. ADV. PG. 635.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Mid-Century Instrumental Corp., 611 Broadway, New York 12, N. Y.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 26, Ill.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.

AMPLIFIERS—Peak Limiting

Alleghany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
DORSETT LABORATORIES, INC., 401 E. Boyd St., Box 862, Norman, Okla. ADV. PG. 460.
 Dubrow Development Co., 235B Penn St., Burlington, N. J.
 Electronic Systems Engineering Co., 903 Cravens Bldg., Oklahoma City, Okla.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
 Johnson Co., E. F., Waseca, Minn.
LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 666.
LING ELECTRONICS, INC., 5170 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Presto Recording Corp., P. O. Box 500, Paramus, N. J.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Ransom Research, Box 382, San Pedro, Calif.
 Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. ADV. PG. 661.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.

AMPLIFIERS—Photocell

Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.
 Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.

Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Deltz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Endevco Corp., 161 E. California St., Pasadena, Calif.
 Ercco Engineering Corp., Addison, Ill.
 Fidelity Amplifier Co., 703 Willow St., Chicago 14, Ill.
 General Electronics Corp., 17 Madison Ave., Montgomery 4, Ala.
HAMMER ELECTRONICS CO., INC., Box 531, Princeton, N. J. ADV. PG. 671.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Hupp Electronics Co., A Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
 Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
 Machinery Electrification, Inc., Northboro, Mass.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.
 Moulic Specialties Co., 1007 W. Washington St., Bloomington, Ill.
 National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Simpson Mfg. Co., Inc., Mark, 32-38 49th St., Long Island City 3, N. Y.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Worner Electronic Devices, Rankin, Illinois.

AMPLIFIERS—Power

ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
 Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
 American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
 Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
 Daystrom Electric Corp., 807 Main St., Poughkeepsie, N. Y.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
 Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah.
 Fidelity Amplifier Co., 703 Willow St., Chicago 14, Ill.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 29, Mass. ADV. PG. 316, 317.
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
 Gotham Audio Development Corp., 2 W. 46th St., New York 36, N. Y.
 Holl Audio Inc., 5014 N. Encinta Ave., Temple City, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

INSTRUMENTS FOR INDUSTRY, INC., 149 Glen Cove Rd., Mineola, N. Y. ADV. PG. 656.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
 Johnson Co., E. F., Waseca, Minn.
 Jowill Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
KROHN-HITE CORP., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 82, 83.
 Lesa, Via Bergamo 21, Milan, Italy.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 McIntosh Laboratory Inc., 2 Chambers St., Binghamton, N. Y.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Modern Industries, Inc., 2601 Colorado Ave., Santa Monica, Calif.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.
 Pegasus Laboratories, Inc., 3692 Eleven Mile Rd., Berkeley, Mich.
 Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
 Power Supplies, Inc., 1007 Olive St., Highland, Ill.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.
RHEEM ELECTRONICS DIVISION, 7777 Industry Ave., Rivera, Calif. ADV. PG. 654.
 Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.
 Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
 Solartron, Inc., Western Div., 10761 Burbank Blvd., North Hollywood, Calif.
SONEX, INC., 73 S. State Rd., Upper Darby, Pa. ADV. PG. 664.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia 4, Pa.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 Transistor Components Co., 301 Oakwood Ave., East Aurora, N. Y.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRANSISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. ADV. PG. 548.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
 Webster Electric Co., 1900 Clark St., Racine, Wis.
 Western Electro-Acoustic Lab., 11789 San Vicente Blvd., Los Angeles 49, Calif.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

AMPLIFIERS—Printed Circuit

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
 Ansley Mfg. Co., Arthur, New Hope, Pa.
 Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PGS. 478, 479.
 Burr-Brown Research Corp., Route 4, Box 139, Tucson, Ariz.
 Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
 Dubrow Development Co., 235B Penn St., Burlington, N. J.
 Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
 Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.

ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
Fairfield Engineering Corp., 934 Hope St., Springfield, Conn.
Fisher Radio Corp., 21-21 Forty Fourth Drive, Long Island City 1, N. Y.
Gates Radio Co., Quincy, Ill.
General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
Jowill Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.
LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 666.
Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
PHOTOCIRCUITS CORP., Glen Cove, N. Y. ADV. PG. 396.
Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
Production Research Corp., Thornwood, N. Y.
RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
Ransom Research, Box 382, San Pedro, Calif.
RHEEM ELECTRONICS DIVISION, 7777 Industry Ave., Rivera, Calif. ADV. PG. 654.
Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
SONEX, INC., 73 S. State Rd., Upper Darby, Pa. ADV. PG. 664.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Sprague Electric Co., 125 Marshall St., North Adams, Mass.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
Trans-Alre Electronics, Inc., 195-02 Jamaica Ave., Hollis 23, N. Y.
United Control Corp., 4540 Union Bay Place, Seattle 5 Wash.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.

AMPLIFIERS—Pulse

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
Devtron Engineering, 1 Winslow St., Redwood City, Calif.
Eberline Instrument Division, P. O. Box 279, Santa Fe, N. M.
Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y.
ELECTRO-PULSE, INC., 11861 Teale St., Culver City, Calif. ADV. PG. 651.
Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah.
Foto Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
HAMNER ELECTRONICS CO., INC., Box 531, Princeton, N. J. ADV. PG. 671.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INSTRUMENTS FOR INDUSTRY, INC., 149 Glen Cove Rd., Mineola, N. Y. ADV. PG. 656.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.

LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 666.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo.
Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.
Ransom Research, Box 382, San Pedro, Calif.
Rese Engineering Corp., 731 Arch St., Philadelphia 6, Pa.
SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRANSISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. ADV. PG. 548.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.
Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

AMPLIFIERS—Recording

Acme Electronics Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
DAVIES LABORATORIES DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 10721 Hanna St., Beltsville, Md. ADV. PG. 446.
Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
Dynamics Instrumentation Co., Div. of Alberhill Corp., 1118 Mission St., South Pasadena, Calif.
ELECTROMATION CO., 1646 Eighteenth St., Santa Monica, Calif. ADV. PG. 692.
Electronic Systems Engineering Co., 903 Cravens Bldg., Oklahoma City, Okla.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
Gotham Audio Development Corp., 2 W. 46th St., New York 36, N. Y.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
Holl Audio Inc., 5014 N. Encinta Ave., Temple City, Calif.
Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Magnasyn Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Maurer, Inc., J. A., 37-01 31st St., Long Island City 1, N. Y.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
Nortronics Co., Inc., 1015 S. Sixth St., Minneapolis 4, Minn.
Parsons Co., Ralph M., Electronics Div., 151 S. DeLacey Ave., Pasadena, Calif.
Photon Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
Presto Recording Corp., P. O. Box 500, Paramus, N. J.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J., ADV. PG. 453, Third & Fourth Covers.

Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
SONEX, INC., 73 S. State Rd., Upper Darby, Pa. ADV. PG. 664.
Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 11, Ill.
Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
Webster Electric Co., 1900 Clark St., Racine, Wis.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

AMPLIFIERS—r-f

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
Ampli-Vision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing 33, N. Y. ADV. PG. 672.
Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
BARBER LABS., ALFRED W., 32-40 Francis Lewis Blvd., Flushing 58, N. Y. ADV. PG. 660.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
Blonder-Tongue Laboratories, Inc., 9-25 Ailing St., Newark 2, N. J.
Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 63.
Community Engineering Corp., Box 824, State College, Pa.
Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Texas.
Denson Electronics Corp., Ellington, Conn.
Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
Erdco Engineering Corp., Addison, Ill.
Gates Radio Co., Quincy, Ill.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
INSTRUMENTS FOR INDUSTRY, INC., 149 Glen Cove Rd., Mineola, N. Y. ADV. PG. 656.
JERROLD ELECTRONICS CORP., 23rd & Chestnut St., Philadelphia 3, Pa. ADV. PG. 574.
LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 666.
Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
McKenna Laboratories, Santa Monica 6, Calif.
Mack Electronics A Div. of Mack Trucks, Inc., Philadelphia, N. J.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Mohawk Electronic Research Labs., Inc., Box 126, RD-4, Amsterdam, N. Y.
National Electronics Laboratories, Inc., 1713 Kalorama Rd., N. W., Washington 9, D. C.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.
Pitometer Log Corp., 237 Lafayette St., New York 17, N. Y.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RS Electronics Corp., 435 Portage Ave., P. O. Box 3, Station A, Palo Alto, Calif.
Servonics, Inc., 822 N. Henry St., Alexandria, Va.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Standard Electronics Corp., 287 Emmet St., Newark 1, N. J.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
Sturup, Inc., 50 Silver St., Middletown, Conn.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia, Pa.
Telephonics Corp., Park Ave., Huntington, N. Y.
TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.

Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

AMPLIFIERS—Servo

Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
Advance Instrument Corp., 1709 F. St., Belmar, N. J.
Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.
Avion Division, ACF Industries, Inc., 11 Park Place, Paramus, N. J.
Belock Instrument Corp., 111-01 14th Ave., College Point, N. Y.
Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.
Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
DETROIT CONTROLS CORP., CONTROL ENGINEERING UNIT, 560 Providence Highway, Norwood, Mass. ADV. PG. 515.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.

Electronic Associates, Inc., Long Beach, N. J.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
GENERAL MAGNETICS, INC., 135 Bloomfield Ave., Bloomfield, N. J. ADV. PG. 426.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
Keystone Products Co., 904-6 23rd St., Union City, N. J.
L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
Link Aviation, Inc., Binghamton, N. Y.
MCKAY ELECTRIC CO., 19790 Stahelin Ave., Detroit 19, Mich. ADV. PG. 638.
Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.
Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
Maxson Instruments, Div. of the W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Mid-Century Instrument Corp., 611 Broadway, New York 12, N. Y.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
Modern Industries, Inc., 2601 Colorado Ave., Santa Monica, Calif.
Muirhead & Co., Ltd., Beckenham, Kent, England.
Nelson Instrument Co., 607 Howard St., Evanston, Ill.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 26, Ill.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
Pegasus Laboratories, Inc., 3692 Eleven Mile Rd., Berkeley, Mich.
Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
Reed-Curtis Nuclear Industries, Inc., 9459 N. Jefferson Blvd., Culver City, Calif.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
Robinetto Corp., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.
Scully Machine Co., 62 Walter St., Bridgeport, Conn.
Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
SERVOMECHANISMS, INC., MECHATROL DIV., 625 Main St., Westbury, N. Y. ADV. PG. 25.
Servonics, Inc., 822 N. Henry St., Alexandria, Va.
Servo-Tek Products Co., Inc., 1086 Goffie Rd., Hawthorne, N. J.
SONEX, INC., 73 S. State Rd., Upper Darby, Pa. ADV. PG. 664.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.
Thompson Products, Inc., Electronics Div., 2196 Clarkwood Ave., Cleveland 3, Ohio.
Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
TOROTEL, INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405.
Trans-Aire Electronics, Inc., 195-02 Jamaica Ave., Hollis 23, N. Y.
TRANSCOIL CORP., Worcester, Penna. ADV. PG. 324.
United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
Warren Mfg. Co., Inc., The, Newton Rd., Littleton, Mass.
Wheeler Insulated Wire Co., Inc., The, Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

AMPLIFIERS—Strain Gage

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Bruehl & Kjaer, Naerum, Denmark.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Century Electronics & Instruments Inc., P. O. Box 6216, Pine Station, Tulsa 10, Okla.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
Daytronic Corp., 216 S. Main St., Dayton, Ohio.
DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
Edin Co., Inc., 207 Main St., Worcester, Mass.
Electro-Mechanical Research Inc., Ridgefield, Conn.
Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
Ellis Associates, Box 77, Pelham, N. Y.
Endevco Corp., 161 E. California St., Pasadena, Calif.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 233-235.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Hanover Developments, 401 E. 74th St., New York 21, N. Y.
Heland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.
Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
Modern Industries, Inc., 2601 Colorado Ave., Santa Monica, Calif.
Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
Photon Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
Servonics, Inc., 822 N. Henry St., Alexandria, Va.
Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
United Electrodynamics Div. of United Geophysical Co., Inc., 1200 S. Marengo, Pasadena, Calif.
Volkers & Schaeffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.

AMPLIFIERS—Sweep

Decade Instrument Co., Box 153, Caldwell, N. J.
Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. ADV. PG. 26, 27.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
Standard Coil Products Co., 2085 N. Hawthorne St., Park, Ill.
SYNTRONIC INSTRUMENTS, INC., 100 Industrial Rd., Addison, Ill. ADV. PG. 570.
Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Wheeler Insulated Wire Co., Inc., The, Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

AMPLIFIERS—Television

Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
Ampli-Vision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
Blonder-Tongue Laboratories, Inc., 9-25 Alling St., Newark 2, N. J.
Community Engineering Corp., Box 824, State College, Pa.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
Gates Radio Co., Quincy, Ill.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
General Precision Laboratory, Inc., 63 Bedford Rd., Pleasantville, N. Y.
HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. ADV. PG. 26, 27.
JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. ADV. PG. 574.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
Philco Corp., Government & Industrial Div., 4700 Wishahickon Ave., Philadelphia 44, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.

TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
Videon Electronic Corp., 902 E Michigan St., Indianapolis 2, Ind.
Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.

AMPLIFIERS—Transistor

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
Berkshire Laboratories, 580 Bank Village, Greenville, N. H.
Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 236.
Burr-Brown Research Corp., Route 4, Box 139, Tucson, Ariz.
Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
DETROIT CONTROLS CORP., CONTROL ENGINEERING UNIT, 560 Providence Highway, Norwood, Mass. ADV. PG. 515.
DOTY ACOUSTICAL ELECTRONIC LABS., INC., 431 Broome St., New York 13, N. Y. ADV. PG. 676.
Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
Ellis Associates, Box 77, Pelham, N. Y.
Engineered Magnetics Div. of Gulton Mfg. Corp., 11818 Teale St., Culver City, Calif.
Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah.
Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
Fidelity Amplifier Co., 703 Willow St., Chicago 14, Ill.
General Electronics Corp., 17 Madison Ave., Montgomery 4, Ala.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. ADV. PG. 26, 27.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. ADV. PG. 340-343.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
KA ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 666.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
M F ELECTRONICS, 122 E. 25th St., New York 10, N. Y. ADV. PG. 512.
Machinery Electrification, Inc., Northboro, Mass.
Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
Malco Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
Maxson Instruments Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Measurement Engineering, Ltd., Arrprior, Ontario, Canada.
Metronix, Inc., Mill Lane, Waterford, Conn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
Modern Industries, Inc., 2601 Colorado Ave., Santa Monica, Calif.
National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
OSTER MFG. CO., JOHN, AVIONICS DIV., 1 N. Main St., Racine, Wis. ADV. PG. 130.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
Paravox, Inc., 2056 E. Fourth St., Cleveland 15, Ohio.
PHOTOCIRCUITS CORP., Glen Cove, N. Y. ADV. PG. 396.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.
Production Research Corp., Thornwood, N. Y.

Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
Ransom Research, Box 382, San Pedro, Calif.
Remier Company, 2101 Bryant St., San Francisco 10, Calif.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash.
SONEX, INC., 73 S. State Rd., Upper Darby, Pa. ADV. PG. 664.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
Telephonics Corp., Lark Ave., Huntington, N. Y.
Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 11, Ill.
Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
Trans-Aire Electronics, Inc., 195-02 Jamaica Ave., Hollis 23, N. Y.
Transistor Components Co., 301 Oakwood Ave., East Aurora, N. Y.
Tripl-T Co., Electronics, Box 5352, Pasadena, Calif.
Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
United Electrodynamics Div. of United Geophysical Co., Int., 1200 S. Marengo, Pasadena, Calif.
UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRANSISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. ADV. PG. 548.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
Wheeler Insulated Wire Co., Inc., The, Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

AMPLIFIERS—Ultrasonic

Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
ARENBERG ULTRASONIC LABORATORY, INC., 94 Green St., Jamaica Plain 30, Mass. ADV. PG. 672.
Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Burr-Brown Research Corp., Route 4, Box 139, Tucson, Ariz.
Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 355 N. Newport Blvd., Newport Beach, Calif.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
M F ELECTRONICS, 122 E. 25th St., New York 10, N. Y. ADV. PG. 512.
McKenna Laboratories, Santa Monica 6, Calif.
Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 230, 231.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Telephonics Corp., Park Ave., Huntington, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
TOROTEL, INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539.

AMPLIFIERS—Vibration Pickup

ACF Electronics, 800 N. Pitt St., Alexandria, Va.

Advanced Electronics, Inc., 94 Silas Deane Highway, Rocky Hill, Conn.
Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
Bruel & Kjaer, Naerum, Denmark.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
Daytronic Corp., 216 S. Main St., Dayton, Ohio.
Dynamics Instrumentation Co., Div. of Alberhill Corp., 1118 Mission St., South Pasadena, Calif.
Electro-Mechanical Research, Inc., Ridgefield, Conn.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
Electronics Manufacturing Div. of Sid Stone Radio Labs, 739 Tremont St., Boston, Mass.
Endevco Corp., 161 E. California St., Pasadena, Calif.
Erwood, Inc., 1770 Berteau Ave., Chicago 13, Ill.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Helland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Columbus 16, Ohio.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.
MB MFG. CO., A DIV. OF TETRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 552.
Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
United Electrodynamics Div. of United Geophysical Co., Inc., 1200 S. Marengo, Pasadena, Calif.
Western Radiation Lab., 1107 W. 24th St., Los Angeles 7, Calif.

AMPLIFIERS—Wideband

ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Airmec Ltd., High Wycombe, Buckinghamshire, England.
Alfred Electronics, 897 Commercial St., Palo Alto, Calif.
Alpha Instrument Co., 43 Hempstead St., New London, Conn.
American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
Ampli-Vision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif.
Applegate & Co., C. J., 1840 24th St., Boulder, Colo.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
ARENBERG ULTRASONIC LABORATORY, INC., Green St., Jamaica Plain 30, Mass. ADV. PG. 672.
Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.
Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Blonder Tongue Laboratories, Inc., 9-25 Ailing St., Newark 2, N. J.
Bruel & Kjaer, Naerum, Denmark.
Burr-Brown Research Corp., Route 4, Box 139, Tucson, Ariz.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
Community Engineering Corp., Box 624, State College, Pa.
Donner Scientific Co., 888 Galindo St., Concord, Calif.
Dynamics Instrumentation Co., Div. of Alberhill Corp., 1118 Mission St., South Pasadena, Calif.
Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
Gotham Audio Development Corp., 2 W. 46th St., New York 36, N. Y.
HAMMER ELECTRONICS CO., INC., Box 531, Princeton, N. J. ADV. PG. 671.
Hanover Developments, 401 E. 71st St., New York 21, N. Y.

Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.

INSTRUMENTS FOR INDUSTRY, INC., 149 Glen Cove Rd., Mineola, N. Y. ADV. PG. 656.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York, 58, N. Y. ADV. PG. 613.

JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. ADV. PG. 574.

Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.

KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.

LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 666.

Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.

Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.

Neutronics Research Co., 165 Lake St., Waltham, Mass.

New London Instrument Co., P. O. Box 189, New London, Conn.

Omega Instrument Co., Box 495M, Pasadena, Calif.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.

PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.

Photon Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.

POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.

RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.

Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.

Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.

Shasta Div. of Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif.

Solartron, Inc., Western Div., 10761 Burbank Blvd., North Hollywood, Calif.

SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.

Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.

Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.

Tektronix, Inc., P. O. Box 831, Portland 7, Ore.

TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia 4, Pa.

Tesla Electric Co., 2871 N. Lincoln Ave., Chicago, 13, Ill.

Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.

WAVE-PARTICLE CO., P. O. Box 252, Menlo Park, Calif. ADV. PG. 591.

Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.

ANALOGS

See **COMPUTERS—Analog**

ANALYZERS—Audio Amplifier

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

Bruehl & Kjaer, Naerum, Denmark.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.

PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.

ANALYZERS—Capacitor

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.

BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.

Bristol Co., The, P. O. Box 1790 EGB, Waterbury 20, Conn.

CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.

Dubrow Development Co., 2358 Penn St., Burlington, N. J.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.

INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.

Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.

Parameters, Inc., 195 Herricks Rd., New Hyde Park, N. Y.

PYRAMID ELECTRIC CO., 1445 Hudson Blvd., North Bergen, N. J. ADV. PG. 463.

SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

ANALYZERS—Circuit

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.

Bristol Co., The, P. O. Box 1790 EGB, Waterbury 20, Conn.

California Technical Industries, 1421 Old County Rd., Belmont, Calif.

Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.

Dit-Mco, Inc., Electronics Div., 911 Broadway, Kansas City 5, Mo.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.

Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill.

KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.

L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.

North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.

OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 650.

Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.

PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.

Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.

PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.

Seco Mfg. Co., 5015 Penn Ave., S., Minneapolis, Minn.

Technical Electronics Corp., 4060 Ince Blvd., Culver City, Calif.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

Wickes Engineering & Construction Co., P. O. Box 590, Camden 1, N. J.

ANALYZERS—Coincidence

BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.

BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.

Devtron Engineering, 1 Winslow St., Redwood City, Calif.

Pacific Electro-Nuclear Co., 11818 Teale St., Culver City, Calif.

Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.

Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.

ANALYZERS—Digital

Benson-Lehner Corp., 11930 W. Olympic Blvd., Los Angeles 64, Calif.

Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.

Devtron Engineering, 1 Winslow St., Redwood City, Calif.

Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.

Litton Industries, Beverly Hills, Calif.

Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Ransom Research, Box 382, San Pedro, Calif.

Southern Instruments Ltd., Computer Div., Frimley Rd., Camberley, Surrey.

Stelma, Inc., 190 Henry St., Stamford, Conn.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

ANALYZERS—Distortion

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.

Bruehl & Kjaer, Naerum, Denmark.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.

EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 388.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.

PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.

TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

ANALYZERS—Frequency

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 73-80.

Bruehl & Kjaer, Naerum, Denmark.

Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 355 N. Newport Blvd., Newport Beach, Calif.

DAVIES LABORATORIES DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 10721 Hanna St., Beltsville, Md. ADV. PG. 446.

Edin Co., Inc., 207 Main St., Worcester, Mass.

Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.

International Research & Development Corp., 769 Thomas Lane, P. O. Box 1707, Columbus 16, Ohio.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.

Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.

Muirhead & Co., Ltd., Beckenham, Kent, England.

PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.

Ransom Research, Box 382, San Pedro, Calif.

Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.

Western Electro-Acoustic Lab., 11789 San Vicente Blvd., Los Angeles 49, Calif.

Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

ANALYZERS—Gas

Applied Physics Corp., 362 W. Colorado St., Pasadena 1, Calif.

Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.

BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

Beckman Inc., Arnold O., 1020 Mission St., South Pasadena, Calif.

Bristol Co., The, P. O. Box 1790 EGB, Waterbury 20, Conn.

Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.

Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.

Devco Engineering Inc., P. O. Box 387, Caldwell, N. J.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

Foxboro Co., The, Foxboro, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Gow-Mac Instrument Co., 100 Kings Rd., Madison, N. J.

Hayes Inc., C. I., 800 Wellington Ave., Cranston, R. I.

Johnson-Williams, Inc., 2526 Park Blvd., Palo Alto 14, Calif.

Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.

King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.

Kruger Instruments, Harold, Box 164, San Gabriel, Calif.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Manufacturers Engineering & Equipment Corp., York & Sunset Lane, Hattboro, Pa.

NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.

Perkin-Elmer Corp., The, Main Ave., Norwalk, Conn.

Rubicon Co., Ridge Ave., at 35th St., Philadelphia 29, Pa.

Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.

Victory Engineering Corp., 101 Springfield Rd., Union, N. J.

ANALYZERS—Harmonic

Airmec Ltd., High Wycombe, Buckinghamshire, England

BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.

Donner Scientific Co., 888 Galindo St., Concord, Calif.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.

Muirhead & Co., Ltd., Beckenham, Kent, England.

PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.

PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.

Reader & Co., Charles M., 173 Victor Ave., Detroit 3, Mich.

ANALYZERS—Intermodulation

Audio Instrument Co., Inc., 133E W. 14th St., New York 11, N. Y.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Fairchild Engine & Airplane Corp. Guided Missiles Div., Wyandanch, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 107.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

ANALYZERS—Magnetic

DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
HAMNER ELECTRONICS CO., INC., Box 531, Princeton, N. J. ADV. PG. 671.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
 Rese Engineering Corp., 731 Arch St., Philadelphia 6, Pa.

ANALYZERS—Microwave Radar
See MICROWAVE ACCESSORIES**ANALYZERS—Noise**

APPLIED RESEARCH, INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
 Bruel & Kjaer, Naerum, Denmark.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 388.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.
 Scott, Inc., Hermion Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

ANALYZERS—Servo

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Solatron, Inc., Western Div., 10761 Burbank Blvd., North Hollywood, Calif.

ANALYZERS—Spectrum

Airborne Electronics Co., 6813 Troost Ave., North Hollywood, Calif.
APPLIED RESEARCH, INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
 Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.
 Bruel & Kjaer, Naerum, Denmark.
 C.G.S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
 Collins Radio Co., Cedar Rapids, Iowa.
 Donner Scientific Co., 888 Galindo St., Concord, Calif.
 Edin Co., Inc., 207 Main St., Worcester, Mass.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
HAMNER ELECTRONICS CO., INC., Box 531, Princeton, N. J. ADV. PG. 671.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
NORTHEASTERN ENGINEERING, INC., Manchester, N. H. ADV. PG. 518, 519.
 Pacific Electro-Nuclear Co., 11818 Teale St., Culver City, Calif.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.

POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
 Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
 Tracerlab, Inc., 1601 Trapelo Rd., Waltham 54, Mass.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.

ANALYZERS—Surface Analyzers & Comparators

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
 Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Bruel & Kjaer, Naerum, Denmark.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Menlo Research Laboratory, 538 Phelan Ave., San Jose, Calif.
 Optron Corp., 3526 State St., Santa Barbara, Calif.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.

ANALYZERS—Thyratron or Photatron

Alectric Mfg. Co., 7842 39th Ave., Kenosha, Wis.

ANALYZERS—Ultrasonic

Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.

ANALYZERS—Vibration

Advanced Electronics, Inc., 94 Silas Deane Highway, Rocky Hill, Conn.
 Bruel & Kjaer, Naerum, Denmark.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
 Dubrow Development Co., 235 B Penn St., Burlington, N. J.
 Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Inscoc Co., Div. of Barry Controls, Inc., Hollis St., Groton, Mass.
 International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Columbus 16, Ohio.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.
 Litton Industries, Beverly Hills, Calif.
 Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Optron Corp., 3526 State St., Santa Barbara, Calif.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.
 Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
WINKLER LABORATORIES, 5225 N. 20th St., Phoenix, Ariz. ADV. PG. 477.

ANALYZERS—Video

Decade Instrument Co., Box 153, Caldwell, N. J.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.

TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
 Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
 Wickes Engineering & Construction Co., P. O. Box 590, Camden 1, N. J.

ANALYZERS—Wave

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Bruel & Kjaer, Naerum, Denmark.
 Donner Scientific Co., 888 Galindo St., Concord, Calif.
GENERAL RADIO CORP., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 188.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
STODDART AIRCRAFT RADIO CO., 6644 Santa Monica Blvd., Hollywood 38, Calif. ADV. PG. 498, 499.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
 Technical Products Co., Instrument Div., 6670 Lexington Ave., Los Angeles 38, Calif.
 Wickes Engineering & Construction Co., P. O. Box 590, Camden 1, N. J.

ANNEALERS—Glass

Forster-Teichmann Co., Clark Bldg., Pittsburgh 22, Pa.
 Hayes Inc., C. I., 800 Wellington Ave., Cranston, R. I.
 New England Oven & Furnace Co., Post Rd., Orange, Conn.
 Steiner-Ives Co., Springfield Rd., Union, N. J.
 Torrance Glass & Color Works, Torrance, Calif.

ANTENNA FAIRLEADS

Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Roffan Co., Corner Route 1 & Camp Meeting Rd., Topsham, Mass.
 Taylor Fibre Co., Norristown, Pa.

ANTENNA FEED SYSTEMS

Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
 Admittance-Namco Corp., Farmingdale, N. Y.
AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 589.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
 Daimo Victor Co., Div. of Tectron, Inc., 1515 Industrial Way, Belmont, Calif.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
 Dielectric Products Engineering Co., Inc., Raymond, Maine.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 Gar Precision Parts, Inc., 703 Pacific St., Stamford, Conn.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Gosnet Co., 801 S. Main St., Burbank, Calif.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 43.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.
 Meridian, Inc., 880 Main St., Stamford, Conn.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
 N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.

Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
 Portchester Instrument Corp., 114 Wilkins Ave., Port
 Chester, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder,
 Northport, N. Y. ADV. PG. 598.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y.
 ADV. PG. 641.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck,
 N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Water-
 bury Rd., Thomaston, Conn. ADV. PG. 545.
TELERAD MFG. CORP., 1440 Broadway, New York 18,
 N. Y. ADV. PG. 632.
 Tennalab, Quincy, Ill.
 Victor R. F. & Microwave Co., 36 W. Water St., Wake-
 field, Mass.
 Wind Turbine Co., E. Market St. & Penna. R.R., West
 Chester, Pa.
 Z & W Mfg. Corp., 30240 Lakeland Blvd., Wickliffe,
 Ohio.

ANTENNA PEDESTALS—Gear Driven Radar

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass.
 ADV. PG. 589.
 Alpar Manufacturing Corp., 2910 Spring St., Redwood
 City, Calif.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE
PRODUCTS GROUP, 1101 N. Royal St., Alexandria,
 Va. ADV. PG. 491.
 Brach Div. Electronic Research, General Bronze Corp.,
 711 Stewart Ave., Garden City, N. Y.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Conrad & Moser, 2 Borden Ave., Long Island City 1,
 N. Y.
 Daimo Victor Co., Div. of Textron, Inc., 1515 Industrial
 Way, Belmont, Calif.
 Defiance Engineering & Microwave Corp., Box 488,
 Beverly Airport, Beverly, Mass.
ECLIPSE PIONEER DIV. BENDIX AVIATION CORP.,
 Teterboro, N. J. ADV. PG. 333-336.
 Electronics & Avionics Div. of the Emerson Electric Mfg.
 Co., 8100 Florissant Ave., St. Louis 21, Mo.
 General Bronze Corp., 711 Stewart Ave., Garden City,
 N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15,
 Ohio.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS
DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV.
 PG. 474, 475.
 Kelvin & Hughes Ltd., New North Rd., Barkingside,
 Essex, England.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 43.
 Peterson & Neville, Inc., 365 Dorchester Ave., Boston,
 Mass.
 Pitometer Log Corp., 237 Lafayette St., New York 12,
 N. Y.
 Press Wireless Laboratories, Inc., 25 Prospect Place,
 West Newton 65, Mass.
REEVES INSTRUMENT CORP., 227 E. 91st St., New
 York 28, N. Y. ADV. PG. 437.
 Rostan Corp., 5660 59th St., Maspeth 78, N. Y.
 Smith Mfg. Co., J. & H., Little Britain Rd., New-
 burgh, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, North-
 port, N. Y. ADV. PG. 598.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons,
 Park Ave., Huntington Station, N. Y.
 Western Gear Corp., Electro Products Div., 132 W.
 Colorado St., Pasadena 1, Calif.

ANTENNA REFLECTORS—Radar Parabolic

Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle,
 N. Y.
AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass.
 ADV. PG. 589.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J.
 ADV. PG. 532.
 Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19,
 Pa.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE
PRODUCTS GROUP, 1101 N. Royal St., Alexandria,
 Va. ADV. PG. 491.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV.
 PG. 112.
 Brach Div. Electronic Research, General Bronze Corp.,
 711 Stewart Ave., Garden City, N. Y.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Conrad & Moser, 2 Borden Ave., Long Island City 1,
 N. Y.
 Daimo Victor Co., Div. of Textron, Inc., 1515 Industrial
 Way, Belmont, Calif.
 Defiance Engineering & Microwave Corp., Box 488,
 Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North
 Ave., Wakefield, Mass. ADV. PG. 337.
 Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
 Federal Telecommunication Labs., A Div. of IT&T, 500
 Washington Ave., Nutley 10, N. J.
GABRIEL ELECTRONICS DIV., THE GABRIEL CO., 135
 Crescent Rd., Needham Heights 94, Mass. ADV. PG.
 382.
 General Bronze Corp., 711 Stewart Ave., Garden City,
 N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15,
 Ohio.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS
DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV.
 PG. 474, 475.
 Keller Products Inc., 41 Union St., Manchester, N. H.
 Kelvin & Hughes Ltd., New North Rd., Barkingside,
 Essex, England.

KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 43.
 Kling Metal Spinning Co., 247 Centre St., New York,
 N. Y.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54,
 Mass.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great
 Neck, N. Y.
 Stainless, Inc., Third St., North Wales, Pa.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV.
 PG. 641.
 Teiner Co., Inc., Roland, 134 Tremont St., Everett 49,
 Mass.
 Teiner Engineering Corp., 116 Madison St., Malden,
 Mass.
 Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
TORNGREN CO., INC., C. W., 236 Pearl St., Somerville
 45, Mass. ADV. PG. 587.
 Tower Construction Co., 2700 Hawkeye Drive, Sioux
 City, Iowa.
 White Aircraft Corp., Palmer, Mass.
 Zenith Aircraft Div. of Zenith Plastics Co., P. O. Box
 91, Gardena, Calif.

ANTENNA ROTATORS

AINSLIE CORP., 312 Quincy Ave., Quincy, Mass. ADV.
 PG. 589.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J.
 ADV. PG. 532.
 Alliance Mfg. Co., Lake Park Blvd., Alliance, Ohio.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE
PRODUCTS GROUP, 1101 N. Royal St., Alexandria,
 Va. ADV. PG. 491.
 Antlab, 4950 N. High St., Columbus 14, Ohio.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y.
 ADV. PG. 415.
 Brach Div. Electronic Research, General Bronze Corp.,
 711 Stewart Ave., Garden City, N. Y.
 Channel Master Co., Ellenville, N. Y.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield,
 N. J. ADV. PG. 111.
 Defiance Engineering & Microwave Corp., Box 488,
 Beverly Airport, Beverly, Mass.
 Electronic Specialty Co., 5121 San Fernando Rd., Los
 Angeles 39, Calif.
 General Bronze Corp., 711 Stewart Ave., Garden City,
 N. Y.
 Haller, Raymond & Brown, Inc., State College, Pa.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS
DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV.
 PG. 474, 475.
JFD MANUFACTURING CO., INC., 6101 16th Ave.,
 Brooklyn 4, N. Y. ADV. PG. 53.
 Johnson Co., E. F., Waseca, Minn.
 Kelvin & Hughes Ltd., New North Rd., Barkingside,
 Essex, England.
 P. M. Industries, Inc., Stamford, Conn.
 Radiart Corp., The, 3455 Vega Ave., Cleveland 13, Ohio.
 Radio Merchandise Sales, Inc., 2016 Bronxdale Ave.,
 New York 62, N. Y.
 Scientific Associates, Inc., 2162 Piedmont Rd., N.E.,
 Atlanta 9, Ga.
TELREX, INC., Asbury Park, N. J. ADV. PG. 661.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons,
 Park Ave., Huntington Station, N. Y.
 Wind Turbine Co., E. Market St. & Penna. R.R., West
 Chester, Pa.

ANTENNA TOWERS & SUPPORTS

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass.
 ADV. PG. 589.
 Alpar Manufacturing Corp., 2910 Spring St., Redwood
 City, Calif.
 Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19,
 Pa.
 Antlab, 4950 N. High St., Columbus 14, Ohio.
 Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
 Blaw-Knox Co., Blaw-Knox Bldg., 300 Sixth Ave.,
 Pittsburgh 22, Pa.
 Brach Div. Electronic Research, General Bronze Corp.,
 711 Stewart Ave., Garden City, N. Y.
 Channel Master Co., Ellenville, N. Y.
 Clear Beam Television Antenna Co., 21341 Roscoe Blvd.,
 Canoga Park, Calif.
 Collins Radio Co., Cedar Rapids, Iowa.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 387.
 Dresser-Ideco Co., 875 Michigan Ave., Columbus 8, Ohio.
 General Bronze Corp., 711 Stewart Ave., Garden City,
 N. Y.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC.,
ELECTRONIC DIV., 460 S. Wyman St., Rockford, Ill.
 ADV. PG. 543.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15,
 Ohio.
 I.E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS
DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV.
 PG. 474, 475.
 Kelvin & Hughes Ltd., New North Rd., Barkingside,
 Essex, England.
 Lehigh Structural Steel Co., 17 Battery Place, New York
 4, N. Y.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver
 St., New York 4, N. Y.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton
 Grove, Ill. ADV. PG. 574.
 Peterson & Neville, Inc., 365 Dorchester Ave., Boston,
 Mass.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
ROHN MFG. CO., 116 Limestone, Bellevue, Peoria, Ill.
 ADV. PG. 525.
 Rostan Corp., 5660 59th St., Maspeth 78, N. Y.

Scientific Associates, Inc., 2162 Piedmont Rd., N.E.,
 Atlanta 9, Ga.
 Smith Mfg. Co., J. & H., Little Britain Rd., New-
 burgh, N. Y.
 South River Metal Products Co., 377-379 Turnpike,
 South River, N. J.
 Stainless, Inc., Third St., North Wales, Pa.
 Thomas Mold & Die Co., Wooster, Ohio.
 Tower Construction Co., 2700 Hawkeye Drive, Sioux
 City, Iowa.
 Truscon Steel Division of Republic Steel Corp., Youngs-
 town, Ohio.
 Vesto Co., Inc., 20th & Clay, North Kansas City, Mo.
 Walnut Machine Co., 1529 S. Walnut St., South Bend
 14, Ind.
 Wincharger Corp., E. 7th & Division Sts., Sioux City,
 Iowa.
 Wind Turbine Co., E. Market St. & Penna. R. R., West
 Chester, Pa.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

ANTENNA TUNING UNITS

Aeronautical Communications Equipment, Inc., 3090
 S. W. 37th Ave., Miami 33, Fla.
 Alto Scientific Co., 855 Commercial St., Palo Alto,
 Calif.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV.
 PG. 112.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby,
 Pa.
 Brach Div. Electronic Research, General Bronze Corp.,
 711 Stewart Ave., Garden City, N. Y.
 Continental Electronics Mfg. Co., 4212-20 S. Buckner
 Blvd., Dallas 27, Texas.
 Defiance Engineering & Microwave Corp., Box 488,
 Beverly Airport, Beverly, Mass.
 Electronic Specialty Co., 5121 San Fernando Rd., Los
 Angeles 39, Calif.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City,
 N. Y.
 General Bronze Corp., 711 Stewart Ave., Garden City,
 N. Y.
 Harvey-Wells Electronics, Inc., North St., Southbridge,
 Mass.
 Hoffman Laboratories, Inc., 3761 S. Hill St., Los
 Angeles 7, Calif.
 Johnson Co., E. F., Waseca, Minn.
MICROPHASE CORP., P. O. Box 1166X, Greenwich,
 Conn. ADV. PG. 528.
 Portchester Instrument Corp., 114 Wilkins Ave., Port
 Chester, N. Y.
 Press Wireless Laboratories, Inc., 25 Prospect Place,
 West Newton 65, Mass.
 Spivey, Inc., James S., 4908 Hampden Lane, Washing-
 ton, 14, D. C.
 Standard Coil Products Co., 2085 N. Hawthorne St.,
 Melrose Park, Ill.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck,
 N. Y.
 Telcoto Industries Corp., 35-16 37th St., Long Island
 City 1, N. Y.
 Victor R. F. & Microwave Co., 36 W. Water St., Wake-
 field, Mass.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City,
 Mo.

ANTENNAS—Aircraft Type

Aeronautical Electronics, Inc., Raleigh-Durham Airport,
 P. O. Box 6527, Raleigh, N. C.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country
 Rd., Mineola, N. Y. ADV. PG. 253.

AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Collins Radio Co., Cedar Rapids, Iowa.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
 Dorne & Margolin, Inc., 30 Sylvester St., Westbury, N. Y.
ECLIPSE PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 333-336.
 Electro Craft Industries Inc., 68 Jackson St., Stamford, Conn.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronics & Avionics Div. of The Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Goodyear Aircraft Corp., 1210 Masillon Rd., Akron 15, Ohio.
 Haller, Raymond & Brown, Inc., State College, Pa.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Leitch Engineering Corp., 326 Lincoln St., Manchester, N. H.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.
 Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 National Aeronautical Corp., Commerce Drive, Ft. Washington Industrial Park, Fort Washington, Pa.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
 Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves, Niagara Falls 2, N. Y.
 Production Research Corp., Thornwood, N. Y.
 Rofan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Smith Mfg. Co., J. & H., Little Britain Rd., Newburgh, N. Y.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.
 Tectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Transco Products, Inc., 12210 Nebraska Ave., Los Angeles 25, Calif.
 Victor RF & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
Z & W Mfg. Corp., 30240 Lakeland Blvd., Wickliffe, Ohio.

ANTENNAS—All Wave Receiving

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
 Clear Beam Antenna Corp., 21341 Roscoe Blvd, Canoga Park, Calif.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
 Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
 Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Illumitronic Engineering, 680 E. Taylor, Sunnvale, Calif.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
 Oaktron Electric Co., Tinley Park, Ill.
 Radion Corp., 1130 Wisconsin Ave., Chicago 14, Ill.
 Smith Mfg. Co., J. & H., Little Britain Rd., Newburgh, N. Y.
SPECIFIC PRODUCTS, 14515 Dickens St., Sherman Oaks 13, Calif. ADV. PG. 500.
TECHNICAL APPLIANCE CORP., Shelburne, N. Y. ADV. PG. 641.
TELREX, INC., Asbury Park, N. J. ADV. PG. 661.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

ANTENNAS—Auto

Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
 Communication Products Co., Inc., Marlboro, N. J.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
DANBURY-KNUDSEN, INC., P. O. Box 170, Danbury, Conn. ADV. PG. 631.
 Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
 Dielectric Products Engineering Co., Inc., Raymond, Maine.
G-C ELECTRONICS MFG. CO., DIV. OF G-C TETRON, INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
GENERAL CEMENT MFG. CO., DIV. OF TETRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.
 Master Mobile Mounts, Inc., 1306 Bond St., Los Angeles 15, Calif.
 Miller Electronics, 2840 Naomi St., Burbank, Calif.
 Philson Mfg. Co., Inc., 60-66 Sackett St., Brooklyn 31, N. Y.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 Radiart Corp., The, 3455 Vega Ave., Cleveland 13, Ohio.
 Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
 Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio.
 Tervo Insulated Wire, 108 Prospect Ave., Burbank, Calif.

ANTENNAS—Broadcast Station Radiators

Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
 Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Stainless, Inc., Third St., North Wales, Pa.
 Tower Construction Co., 2700 Hawkeye Drive, Sioux City, Iowa.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

ANTENNAS—Directional Antenna Coupling & Phasing Units

Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
 C.G.S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
 Clear Beam Television Antenna Co., 21341 Roscoe Blvd., Canoga Park, Calif.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Collins Radio Co., Cedar Rapids, Iowa.
 Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Texas.
 Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Gates Radio Co., Quincy, Ill.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
 Johnson Co., E. F., Waseca, Minn.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.

Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
 Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Rofan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Stainless, Inc., Third St., North Wales, Pa.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.
 Transco Products, Inc., 12210 Nebraska Ave., Los Angeles 25, Calif.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Waveline, Inc., Box 470, Caldwell, N. J.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

ANTENNAS—Dummy Loads

Admittance-Namco Corp., Farmingdale, N. Y.
 Aeronautical Communications Equipment, Inc., 1090 S. W. 37th Ave., Miami 33, Fla.
 Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
 Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Collins Radio Co., Cedar Rapids, Iowa.
 Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Tex.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
 Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
 Federal Telecommunications Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
JONES ELECTRONICS CO., INC., M. C., 185 N. Main St., Bristol, Conn. ADV. PG. 376.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
 Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
 Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Rofan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 States Co., 19 New Park Ave., Hartford 6, Conn.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Tectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
Victor RF. & Microwave Co., 36 W. Water St., Wakefield, Mass.
WacLine, Inc., 35 S. St. Claire St., Dayton 2, Ohio.
Waveline, Inc., Box 470, Caldwell, N. J.
Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.
Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

ANTENNAS—Fixed Station Antenna Systems

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.
Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
Collins Radio Co., Cedar Rapids, Iowa.
Communication Products Co., Inc., Marlboro, N. J.
Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
Dielectric Products Engineering Co., Inc., Raymond, Maine.
Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
GABRIEL ELECTRONICS DIV., THE GABRIEL CO., 135 Crescent Rd., Needham Heights 94, Mass. ADV. PG. 382.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Gonset Co., 801 S. Main St., Burbank, Calif.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
Johnson Co., E. F., Waseca, Minn.
Kreckman Co., Herb, Kreco Antennas, Cresco, Pa.
Leitch Engineering Corp., 326 Lincoln St., Manchester, N. H.
Marconi's Wireless Telegraph Co., Ltd., 23-25 Beaver St., New York 4, N. Y.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.
Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.
Prodelin Inc., 307 Bergen Ave., Kearny, N. J.
Pruyn-Moore, Inc., 1338 Cota Ave., Long Beach 13, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Cover
Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
Smith Mfg. Co., J. & H., Little Britain Rd., Newburgh, N. Y.
Stainless, Inc., Third St., North Wales, Pa.
Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W. Woodside 77, N. Y.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.
Technical Materiel Corp., P. O. Box 142, Mamaronock, N. Y.
Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.
Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

ANTENNAS—f-m Receiver

Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
CBC Electronics Co., Inc., 2601 N. Howard St., Philadelphia, Pa.
Clear Beam Antenna Corp., 21341 Roscoe Blvd., Canoga Park, Calif.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
Finney Co., The, 34 W. Interstate, Bedford, Ohio.
Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
Gonset Co., 801 S. Main St., Burbank, Calif.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.
Lynnmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
Miller Electronics, 2840 Naomi St., Burbank, Calif.
Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.

Philson Mfg. Co., Inc., 60-66 Sackett St., Brooklyn 31, N. Y.
Pruyn-Moore, Inc., 1338 Cota Ave., Long Beach 13, Calif.
Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.
Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia 4, Pa.
TELREX, INC., Asbury Park, N. J. ADV. PG. 661.
Tennalab, Quincy, Ill.
Tricraft Products Corp., 1124 W. Newport Ave., Chicago 13, Ill.
Video Industries Co., 242 Madison Ave., Port Chester, N. Y.
Walco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

ANTENNAS—f-m Transmitter

ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
Collins Radio Co., Cedar Rapids, Iowa.
Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
Gates Radio Co., Quincy, Ill.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.
Pruyn-Moore, Inc., 1338 Cota Ave., Long Beach 13, Calif.
Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
Stainless, Inc., Third St., North Wales, Pa.
Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia 4, Pa.
TELREX, INC., Asbury Park, N. J. ADV. PG. 661.
Tennalab, Quincy, Ill.

ANTENNAS—Ground Plane

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.
AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 589.
American Electronic Labs, Inc., 121 N. 7th St., Philadelphia 6, Pa.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
Babcock Radio Engineering Co., P. O. Box 3097, Van Nuys, Calif.
Communication Products Co., Inc., Marlboro, N. J.
Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
Dielectric Products Engineering Co., Inc., Raymond, Maine.
Dollar Co., Robert, Communications Equipment Div., 50 Drumm St., San Francisco 11, Calif.
FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
Gonset Co., 801 S. Main St., Burbank, Calif.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
Kreckman Co., Herb, Kreco Antennas, Cresco, Pa.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.
Master Mobile Mounts, Inc., 1306 Bond St., Los Angeles 15, Calif.
Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W. Woodside 77, N. Y.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.
Video Industries Co., 242 Madison Ave., Port Chester, N. Y.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
Z & W Mfg. Corp., 30240 Lakeland Blvd., Wickliffe, Ohio.

ANTENNAS—Indoor

American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
Brach Div., Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Cass Machine Co., 691 Antoinette St., Detroit 2, Mich.
Channel Master Co., Ellenville, N. Y.
Clear Beam Antenna Corp., 21341 Roscoe Blvd., Canoga Park, Calif.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.

Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
Medal Mfg. Co., Inc., 194 E. Silver St., Sharon, Pa.
Miller Electronics, 2840 Naomi St., Burbank, Calif.
Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.
Radian Corp., 1130 Wisconsin Ave., Chicago 14, Ill.
Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio.
Tricraft Products Corp., 1124 W. Newport Ave., Chicago 13, Ill.
Trio Mfg. Co., Griggsville, Ill.

ANTENNAS—Loop

AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
AUTOMATIC COIL CO., 415 Bedford Ave., Brooklyn, N. Y. ADV. PG. 675.
Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
Collcraft, Inc., Cary, Ill.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.
Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.
I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
Oaktron Electric Co., Tinley Park, Ill.
Penn Tran Corp., Bellefonte, Pa.
Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
Rollan Electric Co., 8233 S. Princeton Ave., Chicago 20, Ill.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose, Park, Ill.
Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.
Vidaire Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

ANTENNAS—Marine

Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.
Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
Ed-Berl Products, Inc., 87 Merrick Rd., Baldwin, N. Y.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Hudson American Corp., 25 W. 43rd St., New York 36, N. Y.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
Jefferson Inc., Ray, 40 E. Merrick Rd., Freeport, N. Y.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.
Pearce-Simpson, Inc., 3023 Coral Way, Miami 34, Fla.
Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Ave., Niagara Falls 2, N. Y.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.

ANTENNAS—Microwave

See MICROWAVE ACCESSORIES

ANTENNAS—Radar Receiving & Transmitting

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 589.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.
Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
Dorne & Margolin, Inc., 30 Sylvester St., Westbury, N. Y.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
GABRIEL ELECTRONICS DIV., THE GABRIEL CO., 135 Crescent Rd., Needham Heights 94, Mass. ADV. PG. 382.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
Haller, Raymond & Brown, Inc., State College, Pa.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 43.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.
Maryland Electronic Mfg. Co., College Park, Md.
Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
Production Research Corp., Thornwood, N. Y.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
Smith Mfg. Co., J. & H., Little Britain Rd., Newburgh, N. Y.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Stainless, Inc., Third St., North Wales, Pa.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.
TELREX, INC., Asbury Park, N. J. ADV. PG. 661.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
White Aircraft Corp., Palmer, Mass.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

ANTENNAS—Railroad

Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
Dielectric Products Engineering Co., Inc., Raymond, Maine.

Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
Kreckman Co., Herb, Kresco Antennas, Cresco, Pa.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.

ANTENNAS—Rotary Beam

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Johnson Co., E. F., Waseca, Minn.
Mosley Electronics, Inc., 8622 S. Charles Rock Rd., St. Louis 14, Mo.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.
TELREX INC., Asbury Park, N. J. ADV. PG. 661.
Tennalab, Quincy, Ill.
Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

ANTENNAS—Telescopic

Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
K-W Engineering Works, 3145-A N. 48th St., Milwaukee 16, Wis.
Kreckman Co., Herb, Kresco Antennas, Cresco, Pa.
Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
Philson Mfg. Co., Inc., 60-66 Sackett St., Brooklyn 31, N. Y.
Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.
Radiant Corp., The, 3455 Vega Ave., Cleveland 13, Ohio.
Radion Corp., 1130 Wisconsin Ave., Chicago 14, Ill.
Telephonics Corp., Park Ave., Huntington, N. Y.
Tricraft Products Corp., 1124 W. Newport Ave., Chicago 13, Ill.

ANTENNAS—Television

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.
ALFORD MFG. CO., INC., 299 Atlantic Ave., Boston, Mass. ADV. PG. 398.
Antennex Co., 4060 Ocean Park Ave., Venice, Calif.
Cass Machine Co., 691 Antoinette St., Detroit 2, Mich.
Channel Master Co., Ellenville, N. Y.
Clear Beam Antenna Co., 21341 Roscoe Blvd., Canoga Park, Calif.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Finney Co., The, 34 W. Interstate, Bedford, Ohio.
Gates Radio Co., Quincy, Ill.
General Bronze Corp., 711 Stewart Av., Garden City, N. Y.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Gonset Co., 801 S. Main St., Burbank, Calif.
I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
Medal Mfg. Co., Inc., 194 E. Silver St., Sharon, Pa.
Miller Electronics, 2840 Naomi St., Burbank, Calif.
National Electric Products Co., 140 Stanwix St., Pittsburgh 22, Pa.
Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
Philson Mfg. Co., 60-66 Sackett St., Brooklyn 31, N. Y.
Radiant Corp., The, 3455 Vega Ave., Cleveland 13, Ohio.
Radio Merchandise Sales, Inc., 2016 Bronxdale Ave., New York 62, N. Y.
Radion Corp., 1130 Wisconsin Ave., Chicago 14, Ill.
Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
Stainless, Inc., Third St., North Wales, Pa.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.
TELREX, INC., Asbury Park, N. J. ADV. PG. 661.
Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio.
Tennalab, Quincy, Ill.
Titchener & Co., E. H., 67 Clinton St., Binghamton, N. Y.

Tricraft Products Corp., 1124 W. Newport Ave., Chicago 13, Ill.
Trio Mfg. Co., Griggsville, Ill.
Video Industries Co., 242 Madison Ave., Port Chester, N. Y.
Walnut Machine Co., 1529 S. Walnut St., South Berwyn 14, Ind.
Wells & Winegard, 3000 Scotten Blvd., Burlington, Iowa.

ANTENNAS—Television Built-in

COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Guthman Div. of Essex Corp., 15 S. Throop St., Chicago 7, Ill.
Radion Corp., 1130 Wisconsin Ave., Chicago 14, Ill.
Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
Television Laboratories, Inc., Mill St., Wauconda, Ill.

ANTENNAS—Television Multiple Set

General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. ADV. PG. 574.
Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.
Video Industries Co., 242 Madison Ave., Port Chester, N. Y.

ANTENNAS—uhf & vhf

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.
Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 491.
American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
Antennex Co., 4060 Ocean Park Ave., Venice, Calif.
Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Budelman Radio Corp., 376 Fairfield Ave., Stamford, Conn.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
Cass Machine Co., 691 Antoinette St., Detroit 2, Mich.
Channel Master Co., Ellenville, N. Y.
Clear Beam Antenna Co., 21341 Roscoe Blvd., Canoga Park, Calif.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
Collins Radio Co., Cedar Rapids, Iowa.
COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
Dielectric Products Engineering Co., Inc., Raymond, Maine.
Dorne & Margolin, Inc., 30 Sylvester St., Westbury, N. Y.
Electronics Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Finney Co., The, 34 W. Interstate, Bedford, Ohio.
Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
GABRIEL ELECTRONICS DIV., THE GABRIEL CO., 135 Crescent Rd., Needham Heights 94, Mass. ADV. PG. 382.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Gonset Co., 801 S. Main St., Burbank, Calif.
Haller, Raymond & Brown, Inc., State College, Pa.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
Kreckman Co., Herb, Kredo Antennas, Cresco, Pa.
Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
Leitch Engineering Corp., 326 Lincoln St., Manchester, N. H.

MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.
Master Mobile Mounts, Inc., 1306 Bond St., Los Angeles 15, Calif.

Miller Electronics, 2840 Naomi St., Burbank, Calif.
National Electric Products Co., 140 Stanwix St., Pittsburgh 22, Pa.
Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.

Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.

Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
Prun-Moore, Inc., 1338 Cota Ave., Long Beach 13, Calif.

Radiart Corp., 3455 Vega Ave., Cleveland 13, Ohio.
Radio Merchandise Sales, Inc., 2016 Bronxdale Ave., New York 62, N. Y.

Radian Corp., 1130 Wisconsin Ave., Chicago 14, Ill.
Roffan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.

Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.

Scala Radio Co., 2814 19th St., San Francisco 10, Calif.

Smith Mfg. Co., J. & H., Little Britain Rd., Newburgh, N. Y.

Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.

Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.

TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

TELREX INC., Asbury Park, N. J. ADV. PG. 661.

Transco Products, Inc., 12210 Nebraska Ave., Los Angeles 25, Calif.

Tricraft Products Corp., 1124 W. Newport Ave., Chicago 13, Ill.

Trlo Mfg. Co., Griggsville, Ill.

Video Industries Co., 242 Madison Ave., Port Chester, N. Y.

Walnut Machine Co., 1529 S. Walnut St., South Bend 14, Ind.

Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.

Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

ANTENNAS—vhf Omnidirectional Radio Range

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.

AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.

ALFORD MFG. CO., INC., 299 Atlantic Ave., Boston, Mass. ADV. PG. 398.

ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.

Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.

Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.

Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.

General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.

J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.

LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PA. 485.

Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.

Leitch Engineering Corp., 326 Lincoln St., Manchester, N. H.

MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.

Maryland Electronic Mfg. Corp., College Park, Md.

National Aeronautical Corp., Commerce Drive, Ft. Washington Industrial Park, Fort Washington, Pa.

TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.

TELREX, INC., Asbury Park, N. J. ADV. PG. 661.

Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

ATTENUATORS—Audio

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.

Aerovox Corp., Pacific Coast Div., 2724 So. Peck Rd., Monrovia, Calif.

Antlab, 4950 N. High St., Columbus 14, Ohio.

CINEMA ENGINEERING DIV., AEROVOX CORP., 1100 Chestnut St., Burbank, Calif. ADV. PG. 688.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.

HYCOR DIV. OF INTERNATIONAL RESISTANCE CO.

12970 Bradley Ave., Sylmar, Calif. ADV. PG. 188.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.

Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.

Langvein Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.

Lesia, Via Bergamo 21, Milan, Italy.

MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.

Muirhead & Co., Ltd., Beckenham, Kent, England.

NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.

New London Instrument Co., P. O. Box 189, New London, Conn.

OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.

PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.

SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.

Solartron, Inc., Western Div., 10761 Burbank Blvd., North Hollywood, Calif.

Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.

Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.

Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.

TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 535.

Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

ATTENUATORS—Microwave, Adjusted & Calibrated

ATTENUATORS—Microwave Coaxial Fixed

ATTENUATORS—Microwave Step

See MICROWAVE ACCESSORIES

ATTENUATORS—rf & i-f

Admittance-Namco Corp., Farmingdale, N. Y.

Aerovox Corp., Pacific Coast Div., 2724 So. Peck Rd., Monrovia, Calif.

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.

APPLIED RESEARCH, INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.

ARENBERG ULTRASONIC LABORATORY, INC., 94 Green St., Jamaica Plain 30, Mass. ADV. PG. 672.

Blonder-Tongue Laboratories, Inc., 9-25 Ailing St., Newark 2, N. J.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.

COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.

Crowley Div. of Aerovox Corp., 1 Central Ave., West Orange, N. J.

CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 626.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.

DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.

ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.

Electrical & Physical Instrument Corp., 42-49 27th St., Long Island City 1, N. Y.

ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 658, 659.

Entron Inc., 4902 Lawrence St., Bladensburg, Md.

FILMOHM CORP., 48 W. 25th St., New York 10, N. Y. ADV. PG. 670.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.

Holland Electronics, 40 Great Jones St., New York 12, N. Y.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.

KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.

MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.

Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.

MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 94.

Metavac, Inc., 45-68 162nd St., Flushing 58, N. Y.

MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.

Muirhead & Co., Ltd., Beckenham, Kent, England.

NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.

New London Instrument Co., P. O. Box 189, New London, Mass.

PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.

Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.

SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.

Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.

TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.

TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 535.

TRAD ELECTRONICS CORP., 1001 First Ave., Asbury Park, N. J. ADV. PG. 522.

TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.

UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.

WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 42.

Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.

Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

AUDIOMETERS

See INSTRUMENTS—Electrical Measuring

AUTOPILOTS

See PILOTS—Automatic

AUTO RADIO CONTROLS

See CONTROLS—Radio Remote

AUTOMATIC ASSEMBLY EQUIPMENT

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.

Alden Systems, Inc., Alden Research Center, Westboro, Mass.

Automation Management, Inc., Westboro, Mass.

Berg Mfg. Corp., 142 Reno Ave., New Cumberland, Pa.

BRIGGS ASSOCIATES, INC., 10 DeKalb St., Norristown, Pa. ADV. PG. 286.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

ConRay Corp., 29 W. Apple St., Dayton 2, Ohio.

COOK CO., FRANK R., 36 S. Santa Fe Drive, Denver 23, Colo. ADV. PG. 480.

DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.

Electro Craft Industries Inc., 68 Jackson St., Stamford, Conn.

Eyelet Tool Co., Inc., 236A Broadway, Cambridge 42, Mass.

General Mills, Inc., Mechanical Div., 1620 Central Ave., Minneapolis 13, Minn.

Halm Instrument Co., Inc., Glen Head Rd., Glen Head, N. Y.

Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.

KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.

Microtronics, Inc., Porete Ave., North Arlington, N. J.

Standard Tool & Mfg. Co., Arlington, N. J.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

United Shoe Machinery Corp., 140 Federal St., Boston 7, Mass.

BAFFLES—Speaker

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.

Bozak Mfg. Co., R. T., The Box 966, Darien, Conn.

Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.

Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.

Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.

Croname, Inc., 1747 Grace St., Chicago 13, Ill.

Dukane Corp., St. Charles, Ill.

Electro Voice Mfg. Co., Inc., Buchanan, Mich.

Electron Enterprises, 6917-19-21 Stanley Ave., Berwyn, Ill.

Hartley Products Co., 521 E. 162nd St., New York 51, N. Y.

Lansing Sound, Inc., James B., 2439 Fletcher Drive, Los Angeles 26, Calif.

Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.

Oleson Co., Otto K., 1534 Cahuenga, Hollywood 28, Calif.

Powers Co., J. J., 1317 S. Fifth Ave., Maywood, Ill.

Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.

PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx 59, N. Y. ADV. PG. 646.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.

RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.

Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.

Remier Company, 2101 Bryant St., San Francisco 10, Calif.

Setchell Carlson, Inc., 330 Fifth Ave., New Brighton, Minn.

Sieler Design Products, 10460 San Pablo Ave., El Cerrito, Calif.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

BARRETTTERS

MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 94.

MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.

BASES—Diode

ELECTRICAL INDUSTRIES DIV., PHILIPS ELECTRONICS, INC., 691 Central Ave., Murray Hill, N. J. ADV. PG. 315.
GRAYHILL, INC., 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 493.
HERMETIC SEAL CORP., 29-37 S. Sixth St., Newark 7, N. J. ADV. PG. 325.
Hermetite Corp., 702 Beacon St., Boston 15, Mass.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.

BASES—Relay**See also MOUNTINGS**

Armel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y.
Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
HERMETIC SEAL CORP., 29-37 S. Sixth St., Newark 7, N. J. ADV. PG. 325.
Hermetite Corp., 702 Beacon St., Boston 15, Mass.
Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.

BASES—Transistor

Associated Engineering & Mfg. Co., Glen Ridge, N. J.
DURO SPECIALTY CO., INC., 811 Boston St., Lynn, Mass. ADV. PG. 284.
ELECTRICAL INDUSTRIES DIV., PHILIPS ELECTRONICS, INC., 691 Central Ave., Murray Hill, N. J. ADV. PG. 315.
HERMETIC SEAL CORP., 29-37 S. Sixth St., Newark 7, N. J. ADV. PG. 325.
Hermetite Corp., 702 Beacon St., Boston 15, Mass.

BATTERIES—Dry

Acme Battery Co., 200 Henry St., Stamford, Conn.
Bright Star Industries, 600 Getty Ave., Clifton, N. J.
BURGESS BATTERY CO., Freeport, Ill. ADV. PG. 699.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
Leclanche S. A., Yverdon, Switzerland.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Mallory Battery Co., 13000 Athens Ave., Cleveland 7, Ohio.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Marathon Battery Co., P. O. Box 298, Wausau, Wis.
National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42 St., New York 17, N. Y.
Olin Mathieson Chemical Corp., 460 Park Ave., New York 22, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Ray-O-Vac Co., 212 E. Washington Ave., Madison, Wis.

BATTERIES—Mercury

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Mallory Battery Co., 13000 Athens Ave., Cleveland 7, Ohio.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Ray-O-Vac Co., 212 E. Washington Ave., Madison, Wis.

BATTERIES—Standard Cell

Bright Star Industries, 600 Getty Ave., Clifton, N. J.
BURGESS BATTERY CO., Freeport, Ill. ADV. PG. 699.
Leclanche S. A., Yverdon, Switzerland.

BATTERIES—Storage

Bowers Battery & Spark Plug Co., Box 1262, Reading, Pa.
COOK CO., FRANK R., 36 S. Santa Fe Drive, Denver 23, Colo. ADV. PG. 480.
Electric Auto-Lite Co., The, Champlain St., Toledo 1, Ohio.
Electric Storage Battery Co., Exide Industrial Div., 42 S. 15th St., Philadelphia 2, Pa.
Gould-National Batteries Inc., 35 Neoga St., Depew, N. Y.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
Leclanche S. A., Yverdon, Switzerland.
Nickel Cadmium Battery Corp., Easthampton, Mass.
Saft Corp. of America, 2 Gregg St., Lodi, N. J.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
Willard Storage Battery Div., The Electric Storage Battery Co., 246-286 E. 131st St., Cleveland 1, Ohio.
YARDNEY ELECTRIC CORP., 40 Leonard St., New York 13, N. Y. ADV. PG. 365.

BATTERIES—Storage Nonspill

Bowers Battery & Spark Plug Co., Box 1262, Reading, Pa.
COOK CO., FRANK R., 36 S. Santa Fe Drive, Denver 23, Colo. ADV. PG. 480.
Electric Storage Battery Co., Exide Industrial Div., 42 S. 15th St., Philadelphia 2, Pa.
Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.
Electronic Batteries, Inc., Bush Terminal Bldg., No. 4, 28-34 35th St., Brooklyn 32, N. Y.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
Nickel Cadmium Battery Corp., Easthampton, Mass.
Saft Corp. of America, 2 Gregg St., Lodi, N. J.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
Willard Storage Battery Div., The Electric Storage Battery Co., 246-286 E. 131st St., Cleveland 1, Ohio.
YARDNEY ELECTRIC CORP., 40 Leonard St., New York 13, N. Y. ADV. PG. 365.

BATTERY CHARGERS

1. Electron Tube
2. Engine Driven
3. Metallic Oxide
4. Motor Generator
5. Portable
6. Selenium

ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. 1-6. ADV. PG. 378.
Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y. 6.
AMERICAN TELEVISION & RADIO CO., 300 E. Fourth St., St. Paul 1, Minn. 5-6. ADV. PG. 222.
Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J. 6.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y. 4-6.
Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J. 4-6.
Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif. 1-2-3-4-5-6.
Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va. 6.
CHRISTIE ELECTRIC CORP., 3410 W. 67th St., Los Angeles 43, Calif. 1-5-6. ADV. PG. 528.
Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill. 6.
Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass. 3-5-6.
Dresser Electric Co., 942 E. Larned St., Detroit 7, Mich. 5-6.
Dynamic Controls Co., 1955 Massachusetts Ave., Cambridge, Mass. 1.
Electro Engineering Products Co., 609 W. Lake St., Chicago, Ill. 4.
Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y. 3.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. 1. ADV. PG. 556.
Fansteel Metallurgical Corp., 2200 Sheridan Road, North Chicago, Ill. 6.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa. 3-6.
Fox Products Co., 4720 N. 18th St., Philadelphia 41, Pa. 1-3-5-6.
GATES ELECTRONIC CO., 2090 Barnes Ave., Bronx 62, N. Y. 6. ADV. PG. 678.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 1-3-4-5-6. ADV. PG. 1-12.
General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y. 3-5-6.
Georator Corp., Manassas, Va. 2-4-5.
Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J. 1-3-5-6.
Gyro Electronics Co., 325 Canal St., New York, N. Y. 6.
HEATH CO. A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. 3. ADV. PG. 575.
HOMELITE DIV. OF TETRON INC., Port Chester, N. Y. 2. ADV. PG. 645.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. 6. ADV. PG. 355-357.
King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio. 1-3-5.
Knopp Inc., 4224 Holden St., Oakland 8, Calif. 6.
Lee Electric & Mfg. Co., 2806 Clearwater St., Los Angeles 39, Calif. 5-6.
MACARR, INC., 2543 Boston Rd., Bronx 67, N. Y. 5-6. ADV. PG. 640.
Mag-Electric Products Inc., 12822 Yukon Ave., Hawthorne, Calif. 2-3-5-6.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind. 3-5.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y. 6.
MODEL RECTIFIER CORP., 1065 Utica Ave., Brooklyn 3, N. Y. 5-6. ADV. PG. 665, 667.

Motoresearch Co., 1600 Junction Ave., Racine, Wis. 2-4-6.

NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. 1-3-5-6. ADV. PG. 369, 370.
North Electric Co., 553 S. Market St., Gallon, Ohio. 5.
NORTHEASTERN ENGINEERING, INC., Manchester, N. H. 5-6. ADV. PG. 518, 519.
Onan & Sons, Inc., D. W., University Ave. at 25th St., S.E., Minneapolis 14, Minn. 2.
OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. 1-3-5-6. ADV. PG. 650.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancover, Wash. 3-6.
PERKIN ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. 6. ADV. PG. 67.
Pioneer Gen-E-Motor Co., 5841 W. Dickens, Chicago 39, Ill. 2-5.
Power Equipment Co., 5740 Nevada East, Detroit 34, Mich. 1-6.
Power Supplies, Inc., 1007 Olive St., Highland, Ill. 5-6.
Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J. 6.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y. 3-5-6.
RAYTHEON MFG. CO. EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. 6. ADV. PG. 250, 251.
Schauer Mfg. Corp., 4521 Alpine Ave., Cincinnati 36, Ohio. 3-5-6.
Sel-Rex Corp., Rectifier Div., 155 Manchester Place, Newark 4, N. J. 5-6.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. 6. ADV. PG. 143.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych London, W. C. 2, England. 6.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J. 1-3-5.
Syntro Corp., 243 Lexington, Homer City, Pa. 6.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. 1-3-5-6. ADV. PG. 549.
Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill. 1-3-6.
United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass. 1-5.
VEC TROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. 1. ADV. PG. 632.
Willard Storage Battery Div., The Electric Storage Battery Co., 246-286 E. 131st St., Cleveland 1, Ohio. 1-5-6.
YARDNEY ELECTRIC CORP., 40 Leonard St., New York 13, N. Y. 6. ADV. PG. 365.

BEACONS—Radar

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
American Machine & Foundry Co., Electronics Div., 1085 Commonwealth Ave., Boston 15, Mass.
Avion Division, ACF Industries, Inc., 11 Park Place, Paramus, N. J.
Bendix Aviation Corp Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
Maryland Electronic Mfg. Corp., College Park, Md.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 268.
Resdel Engineering Corp., 330 S. Fair Oaks Ave., Pasadena 1, Calif.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

BEACONS—Radio Navigation

Aeronautical Communications Equipment, Inc., 3090 S. W. 37th Ave., Miami 33, Fla.
Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.

FEDERAL TELEPHONE & RADIO CO., 99 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
Hallamore Electronics Co., 8352 Brookhurst Ave., Anaheim, Calif.
Maryland Electronic Mfg. Corp., College Park, Md.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
Standard Telephones & Cables Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

BEARINGS

1. Jewel
2. Miniature Ball
3. Miniature Needle

American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y. 1.
Barden Corp., E. Franklin St., Danbury, Conn. 2.
BIRD CO., RICHARD H., 1 Spurge St., Waltham, Mass. 1. ADV. PG. 424.
Fafnir Bearing Co., The, New Britain, Conn. 2.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 1. ADV. PG. 1-12.
Landis & Gyr, Inc., 45 W. 45th St., New York 36, N. Y. 2.
Marlin-Rockwell Corp., Jamestown, N. Y. 2.
Miniature Precision Bearings, Inc., Precision Park Keene, N. H. 2.
Moser Jewel Co., Perth Amboy, N. J. 1.
New Departure Div., General Motors Corp., Bristol, Conn. 2.
NEW HAMPSHIRE BALL BEARINGS, INC., Peterborough, New Hampshire. 2. ADV. PG. 93.
RAWAY BEARING CO., 4-8 Forsyth St., New York 2, N. Y. 2. ADV. PG. 699.
Swiss Jewel Co., Lafayette Bldg., Philadelphia 6, Pa. 1.
Torrington Co., 59 Field St., Torrington, Conn. 2.
Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass. 1.

BEARINGS—Ball or Roller, Radar Antenna

Barden Corp., E. Franklin St., Danbury, Conn.
Fafnir Bearing Co., The, New Britain, Conn.
Halax Corp., P. O. Box 425, Los Gatos, Calif.
Industrial Technics, Inc., 2100 Jackson Rd., Ann Arbor, Mich.
Kaydon Engineering Corp., The, Muskegon, Mich.
New Departure Div., General Motors Corp., Bristol, Conn.
P I C Design Corp., 477 Atlantic Ave., East Rockaway, N. Y.
RAWAY BEARING CO., 4-8 Forsyth St., New York 2, N. Y. ADV. PG. 699.
Timken Roller Bearing Co., Canton 6, Ohio.

BELLOWS

Arrowhead Products, 2300 Curry St., Long Beach 5, Calif.
Breeze Corps., Inc., 700 Liberty Ave., Union, N. J.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Clifford Mfg. Co., Grove St., Waltham, Mass.
Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Flexonics Corp., 1315 S. Third Ave., Maywood, Ill.
Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville 1, Tenn.
P I C Design Corp., 477 Atlantic Ave., East Rockaway, N. Y.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 694.
Titeflex, Inc., Hendee St., Springfield 4, Mass.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.

BELTS—Dial Drive

BEAD CHAIN MANUFACTURING CO., THE, 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 615.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
Walasco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
White Dental Mfg. Co., S. S. Industrial Div., 10 E. 40th St., New York 16, N. Y.

BENCH TEST SET-UPS

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
Bernco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
ConRay Corp., 29 W. Apple St., Dayton 2, Ohio.

DeMORNAV-BONARDI, INC., 780 S. Arroya Parkway, Pasadena, Calif. ADV. PG. 374, 375.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
FORMICA METAL PRODUCTS CO., Corporation Way, Medford, Mass. ADV. PG. 284.
Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
Hunter-Bristol Corp., Bristol, Pa.
Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 650.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.

BENDS—Microwave

See MICROWAVE ACCESSORIES

BI-METALS—Thermostatic

American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
BAKER & CO., INC., 113 Astor St., Newark 5, N. J. ADV. PG. 313.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
WILSON CO., H. A., THE, 2655 U. S. Hwy. 22 Union, N. J. ADV. PG. 257.

BLOCKS—Fuse Blocks & Holders

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
Aerolite Electronics Corp., 507 26th St., Union City, N. J.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
BUSSMANN MFG. CO., St. Louis 7, Mo. ADV. PG. 60.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa.
Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.
JONES DIV., HOWARD B. CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
Koltan Electric Mfg. Co., 123 New Jersey Railroad Ave., Newark 5, N. J.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mt. Vernon, N. Y. ADV. PG. 685.
LITTELFUSE, INC., Des Plaines, Ill. ADV. PG. 459.
Neosil Products Div. of Rubber Associates, Inc., 745 Fifth Ave., New York 22, N. Y.
Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

BLOWERS—Small

Air Control Installation, Ltd., Ruslip, Middlesex, England.
AIR-MARINE MOTORS, INC., 365 Bayview Ave., Amityville, N. Y. ADV. PG. 569.
AMERICAN BLOWER DIV. OF AMERICAN STANDARD, Detroit 32, Mich. ADV. PG. 352, 353.
Ashland Electric Products, Inc., 32-02 Queens Blvd., Long Island City 1, N. Y.
Borg-Warner Corp., Pesco Products Div., 24700 N. Miles Rd., Bedford, Ohio.
DYNAMIC AIR ENGINEERING INC., 7412 Maie Ave., Los Angeles 1, Calif. ADV. PG. 686.
EASTERN AIR DEVICES, INC., 385 Central Ave., Dover, N. H. ADV. PG. 312.
Electric Trading Co., 313 Canal St., New York, N. Y.
ELECTRO-AIRE DIV. OF HYDRO AIRE, INC., 6909 Farmdale Ave., North Hollywood, Calif. ADV. PG. 510.
El Ray Motor Co., Inc., 11747 Vose St., North Hollywood, Calif.
Fairchild Camera & Instrument Corp., Electrical Products Div., 110 Main St., Burlington, Vt.
Fasco Industries, Inc., Rochester 2, N. Y.
Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
HEINZE ELECTRIC CO., 685 Lawrence St., Lowell, Mass. ADV. PG. 657.
Hertner Electric Co., 12690 Elmwood Ave., Cleveland 11, Ohio.
Holub Industries, Inc., 414 DeKalb Ave., Sycamore, Ill.
Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
Ilg Electric Ventilating Co., 2850 N. Pulaski Rd., Chicago 41, Ill.
JOY MFG. CO., Dept. 39, Oliver Bldg., Pittsburgh 22, Pa. ADV. PG. 362.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.

Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
MCLEAN ENGINEERING, Box 228, Princeton, N. J. ADV. PG. 414.
Master Appliance Mfg. Co., Fourth & Ontario Sts., Ontario, Wis.
OSTER MFG. CO., JOHN, AVIONICS DIV., 1 N Main St., Racine, Wis. ADV. PG. 130.
Redmond Co., Inc., Owosso, Mich.
Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
Rotating Components, Inc., 269 Green St., Brooklyn 22, N. Y.
ROTRON MFG. CO., INC., 7-9 Schoonmaker Lane, Woodstock, N. Y. ADV. PG. 256.
SANDERS ASSOCIATES, INC., Nashua, N. H. ADV. PG. 534.
Servomechanisms, Inc., 12500 Aviation Blvd., Hawthorne, Calif.
Servo-Tek Products Co., Inc., 1086 Goffe Rd., Hawthorne, N. J.
Small Motors, Inc., 2076 Elston Ave., Chicago 14, Ill.
Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia.
Torit Mfg. Co., Walnut & Exchange Sts., St. Paul 2, Minn.
Ventrac Corp., 11 W. 42nd St., New York, N. Y.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.

BOARDS—Capacitor or Resistor

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
Aerolite Electronics Corp., 507 26th St., Union City, N. J.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 693.
Johns-Manville, 22 E. 40th St., New York 16, N. Y.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Measurement Engineering, Ltd., Annprior, Ontario, Canada.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
NATIONAL TEL-TRONICS CORP., 35 St. Casimirs Ave., Yonkers, N. Y. ADV. PG. 642.
Sheffco Mfg. Corp., Grand & Ruby Aves., Palisades Park, N. J.
Stone City Machine & Tool Co., Inc., P.O. Box 351 1206 Seventh St., Bedford, Ind.
Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
Warren Plastics Corp., Warren, Pa.
West Virginia Pulp & Paper Co., 230 Park Ave., New York 17, N. Y.

BOARDS—Plotting

Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
RS Electronics Corp., 435 Portage Ave., P.O. Box 368, Station A, Palo Alto, Calif.
Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
Telex, Inc., Telex Park, St. Paul 1, Minn.

BOARDS—Plug

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
Aerolite Electronics Corp., 507 26th St., Union City, N. J.
Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Hallamore Electronics Co., 8352 Brookhurst Ave., Anaheim, Calif.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.

Pfeger Products, 3901 W. 54th St., Los Angeles 43, Calif.
POMONA ELECTRONICS CO., INC., 1126 W. Fifth Ave., Pomona, Calif. ADV. PG. 314.
 Remler Company, 2101 Bryant St., San Francisco 10, Calif.

BOARDS—Strip Type

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 Arnel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y.
 British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 693.
 Johnson Co., E. F., Waseca, Minn.
JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 685.
 Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.
 Measurement Engineering, Ltd., Arrnprior, Ontario, Canada.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Molded Insulation Co., 355 E. Price St., Philadelphia 44, Pa.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 642.
 Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.
 Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
 Pfeger Products, 3901 W. 54th St., Los Angeles 43, Calif.
 Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford Ind.
 Tri-Dex Co., P. O., P. O. Box 1207, Lindsay, Calif.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 476.

BOBBINS—Coil Winding

ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 580.
 Buckeye Bobbin Co., 12200 Sprecher Ave., Cleveland 11, Ohio.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.
 Electro Devices Inc., 580 Main St., Wilmington, Mass.
 Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 571.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
ERA ELECTRIC CORP., 314 Valley Brook Ave., Lyndhurst, N. J. ADV. PG. 665.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.
GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
HYDRO MOLDING CO., INC., Plattsburgh, N. Y. ADV. PG. 397.
 Isolantite Manufacturing Corp., Stirling, N. J.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Milman Engineering Co., 1831 Pontius, West Los Angeles, Calif.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Molding Corp. of America, 40 Church St., Pawtucket, R. I.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 642.
NORRICH PLASTICS CORP., 35 E. 32nd St., New York, N. Y. ADV. PG. 244.
 Oaktron Electric Co., Tinley Park, Ill.
 Orange Products Inc., 554 Mitchell St., Orange, N. J.
POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 681.

PRECISION PAPER TUBE CO., 2041 W. Charleston St., Chicago 47, Ill. ADV. PG. 673.
 Resinite Corp. Sub. of Precision Paper Tube Co., 6981 N. Central Park Ave., Chicago 45, (Lincolnwood) Ill.
 Rollan Electric Co., 8233 S. Princeton Ave., Chicago 201, Ill.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
 Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
 Silicone Insulation, Inc., 1385 Seabury Ave., Bronx 61, N. Y.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tona-wanda, N. Y.
 Stevens Products, Inc., 86-88 Main St., East Orange, N. J.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 108, 109.
 Synthane Corp., Oaks, Pa.
 Taylor Fibre Co., Norristown, Pa.
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
 Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.

BOBBINS—Transformer Winding

ACCURATE PAPER TUBE CO., 801 N. Peoria St., Chicago 22, Ill. ADV. PG. 416.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 580.
 Buckeye Bobbin Co., 12200 Sprecher Ave., Cleveland 11, Ohio.
ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 571.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
ERA ELECTRIC CORP., 314 Valley Brook Ave., Lyndhurst, N. J. ADV. PG. 665.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.
HYDRO MOLDING CO., INC., Plattsburgh, N. Y. ADV. PG. 397.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Molding Corp. of America, 40 Church St., Pawtucket, R. I.
NORRICH PLASTICS CORP., 35 E. 32nd St., New York, N. Y. ADV. PG. 244.
 Oaktron Electric Co., Tinley Park, Ill.
POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 681.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
PRECISION PAPER TUBE CO., 2041 W. Charleston St., Chicago 47, Ill. ADV. PG. 673.
 Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
 Silicone Insulation, Inc., 1385 Seabury Ave., Bronx 61, N. Y.
 Stevens Products, Inc., 86-88 Main St., East Orange, N. J.
 Synthane Corp., Oaks, Pa.
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
 Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.

BOLOMETER MOUNTS

See **MICROWAVE ACCESSORIES**
Crystal Mounts & Mixers

BOLOMETERS

See **TUBES—Bolometer**

BOLTS—Spade

Amatom Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
 Atlas Screw & Specialty Co., Inc., 450 Broome St., New York 13, N. Y.
 Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 26, Mass.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
 National Screw & Mfg. Co., Cleveland 4, Ohio.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.
 Titchener & Co., E. H., 67 Clinton St., Binghamton, N. Y.
 United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

BOLTS—Toggle or Expansion

E-Expansion . . . T-Toggle

Ackerman-Johnson Co., 625 W. Jackson Blvd., Chicago 6, Ill. E-T.
 Alvo Nut & Bolt Co., Inc., 1601 Grande Vista Ave., Los Angeles 23, Calif. E-T.
 Arro Expansion Bolt Co., 1522 Boone Ave., Marion, Ohio. E-T.
 Atlas Screw & Specialty Co., Inc., 450 Broome St., New York 13, N. Y. E-T.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn. E.
 Chicago Expansion Bolt Co., 1338 W. Concord Place, Chicago 22, Ill. E-T.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. T. ADV. PG. 558.
 Harper Co., H. M., The, 8200 Lehigh Ave., Morton Grove, Ill. E.
 Holub Industries, Inc., 414 DeKalb Ave., Sycamore, Ill. E-T.
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill. E.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. E-T. ADV. PG. 683.
 National Lead Co., 111 Broadway, New York 6, N. Y. E.
 National Screw & Mfg. Co., The, Cleveland 4, Ohio. E-T.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio. E-T.
STAR EXPANSION PRODUCTS CO., INC., 142 Liberty St., New York 6, N. Y. E-T. ADV. PG. 588.
 Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill. E-T.

BOOKS

See **TECHNICAL BOOKS—Publishers**

BOOMS—Microphone

Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
 Bruel & Kjaer, Naerum, Denmark.
 Camera Mart Inc., 1845 Broadway, New York 23, N. Y.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
 Olesen Co., Otto K., 1534 Caluenga, Hollywood 28, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.

BOOSTERS—Television

Ampli-Vision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif.
 Astatic Corp., The, Conneaut, Ohio.
 Blonder-Tongue Laboratories, Inc., 9-25 Alling St., Newark 2, N. J.
 Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
 C B C Electronics Co., Inc., 2601 Howard St., Philadelphia 33, Pa.
 Community Engineering Corp., Box 824, State College, Pa.
 I.D.E.A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
 Radiart Corp., The, 3455 Vega Ave., Cleveland 13, Ohio.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
 Videon Electronic Corp., 902 E. Michigan St., Indianapolis 2, Ind.
 Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.

BOXES—Metal, Plastic or Waterproof

A&P Metal Products Mfg. Corp., 111 Bloomingdale Rd., Hicksville, N. Y.
ABALON PRECISION MFG. CORP., 840 Casanova St., Bronx 59, N. Y. ADV. PG. 644.
 Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 554.
 Althor Products, 2301 Benson Ave., Brooklyn 14, N. Y.
AMERICAN ALUMINUM CO., Sheffield St., C, Mount-ain-side, N. J. ADV. PG. 604.
 American Plastics Corp., 342 Madison Ave., New York, N. Y.
 Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
 Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Auburn Button Works, Inc., Auburn, N. Y.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 501.
 Bennett Mfg. Co., Alden, N. Y.
 Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.

BRADLEY INDUSTRIES, 1650-58 N. Damen Ave., Chicago 47, Ill. ADV. PG. 566.
Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
Calresin Corp., 4543 Brazil St., Los Angeles 39, Calif.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 605.
Columbia Metal Box Co., 260 E. 143rd St., New York, N. Y.

Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
Controlled Atmosphere Enclosures Corp., 230-11 141st Ave., Springfield Gardens 13, N. Y.

Croname, Inc., 1747 Grace St., Chicago 13, Ill.
Cutler Metal Products Co., 1025 Line St., Camden, N. J.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Doepke Mfg. Co., Inc., Chas. Wm., 1956 Emerald Ave., Rossmoyne, Ohio.

Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.

Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.

Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.

Eugene Engineering Corp., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.

FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.

GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 538.

General Metal Products Co., 1010-14 Centre St., Easton, Pa.

GREAT EASTERN METAL PRODUCTS CO., 22 Woodworth Ave., Yonkers, N. Y. ADV. PG. 696.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

Hoffman Engineering Corp., Anoka, Minn.

HUGHES & PHILLIPS, INC., 3300 N. San Fernando Blvd., Burbank, Calif. ADV. PG. 685.

I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.

Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.

Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.

Koch & Sons, H., Corte Madera, Calif.

Lennard Co., Inc., P. M., P. O. Box 56, Village Station, New York 14, N. Y.

Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.

Mobil Electronics Mfg. Co., 1111 State Rd., 67 E. Anderson, Ind.

Molded Fibreglas Co., 4401 Benefit Ave., Ashtabula, Ohio.

Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.

Muckle Mfg. Co., Owatonna 55, Minn.

Peterson & Neville, Inc., 365 Dorchester Ave., Boston, Mass.

Porcelain Products, Inc., Findlay, Ohio.

REF Mfg. Corp., Jericho Turnpike, Mineola, N. Y.

Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.

Riester & Thesmacher Co., 1510 W. 25th St., Cleveland 13, Ohio.

Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.

ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.

Scovill Manufacturing Co., Waterbury 20, Conn.

Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.

Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.

Stevens-Walden, Inc., 475 Shrewsbury St., Worcester 4, Mass.

Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.

Sweedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.

SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

Trimm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.

VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 476.

Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.

Warren Plastics Corp., Warren, Pa.

Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.

White Aircraft Corp., Palmer, Mass.

ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 634.

BRACKETS-f-m & Television Antenna

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 644.

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.

GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., Electronic Div., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.

Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.

I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.

JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.

Kenwood Engineering Co., Inc., 265 Colfax Ave., Kenilworth, N. J.

Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.

Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.

ROHN MFG. CO., 116 Limestone, Bellevue, Peoria, Ill. ADV. PG. 525.

South River Metal Products Co., 377-379 Turnpike, South River, N. J.

TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.

Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.

Tricraft Products Corp., 1124 W. Newport Ave., Chicago 13, Ill.

Trimm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.

Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

BREADBOARD KITS—Electronic

Aerolite Electronics Corp., 507 26th St., Union City, N. J.

Aerovox Corp., 740 Bellevue Ave., New Bedford, Mass.

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 589.

ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.

American Scientific Development Co., 334 S. Main St., Atkinson, Wis.

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.

BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.

DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.

GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.

Helipot Corp., Newport Beach, Calif.

Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.

POMONA ELECTRONICS CO., INC., 1126 W. Fifth Ave., Pomona, Calif. ADV. PG. 314.

REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.

Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.

SERVOMECHANISMS, INC., MECHATROL DIV., 625 Main St., Westbury, N. Y. ADV. PG. 25.

SPECIFIC PRODUCTS, 14515 Dickens St., Sherman Oaks 13, Calif. ADV. PG. 500.

Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.

Sterling Precision Corp., Instrument Div., 34-17 Lawrence St., Flushing 54, N. Y.

VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 476.

Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

BREAKERS—Circuit

AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300.

AHard Instrument Corp., 146 E. Second St., Mineola, N. Y.

American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.

Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.

Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Heinemann Electric Co., 150 Plum St., Trenton 2, N. J.

I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.

Jack & Heintz, Inc., Cleveland 1, Ohio.

LITTELFUSE, INC., Des Plaines, Ill. ADV. PG. 459.

Murray Mfg. Corp., 1250 Atlantic Ave., Brooklyn 16, N. Y.

Roller Smith Corp., 1825 W. Market St., Bethlehem, Pa.

Spencer Thermostat Div., Metals & Controls Corp., 31 Forest St., Attleboro, Mass.

SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

Trumbull Components Dept., General Electric Co., 41 Woodford Ave., Plainville, Conn.

BRIDGES—Capacitance

Aerovox Corp., 740 Bellevue Ave., New Bedford, Mass.

Alpha Instrument Co., 43 Hempstead St., New London, Conn.

BOONTON ELECTRONICS CORP., 798 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.

Cinema-Television Ltd., Worsley Bridge Rd., London, S.E. 26, England.

Clough-Bregle Co., 6014 N. Broadway, Chicago, Ill.

CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.

Daystrom Instrument, Archbald, Pa.

Electro-Measurements, Inc., 7524 S. W. Macadam, Portland 1, Ore.

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

Glenco Corp., A Sub. of Gulton Industries, Metuchen, N. J.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.

INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.

Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass.

Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.

MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.

Metronix, Inc., Mill Lane Waterford, Conn.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

Muirhead & Co., Ltd., Beckenham, Kent, England.

New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.

Pennsylvania Testing Lab., Inc., Doylestown, Pa.

Simmonds Aerocessories, Inc., Tarrytown, N. Y.

Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.

SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

BRIDGES—Cathode Interface Impedance

CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.

Pennsylvania Testing Lab., Inc., Doylestown, Pa.

BRIDGES—Electrical

BRIDGES—Impedance

BRIDGES—Inductance

See INSTRUMENTS—Electrical Measuring

BRIDGES—Megohm

Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

Kuljian Corp., The, Electronics Div., 1200 N. Broad St., Philadelphia 21, Pa.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.

New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.

PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.

PRECISE MEASUREMENTS CO., R. O. #1, Millbrook Rd., Flemington, N. J. ADV. PG. 399.

Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.

Teleco Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

BRIDGES—Resistance

Electro-Measurements, Inc., 7524 S. W. Macadam, Portland 1, Ore.

Shasta Div. of Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif.

BRIDGES—Temperature

Arnoux Corp., Box 34628, Los Angeles, Calif.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

Epplab Lab., Inc., The, Newport, R. I.

Foxboro Co., The, Foxboro, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

GRAY INSTRUMENT CO., 200 E. Church Lane, Philadelphia 44, Pa. ADV. PG. 643.

HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth 7, Texas. ADV. PG. 524.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.

Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.

Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

Tech Laboratories, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.

Yellow Springs Instrument Co., Inc., P. O. Box 106, 11, N. Y.

Yellow Springs, Ohio.

BRIDGES—Thermistor

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
Bellair Electronics, Inc., 62 White St., Red Bank, N. J.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 34, N. Y. ADV. PG. 236.
GENERAL ELECTRIC CO., MAGNETIC MATERIALS SECTION, 7780 Neff Rd., Edmore, Mich. ADV. PG. 16, 17.
CULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Tech Laboratories, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.
WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 42.
Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

BRIDGES—vhf

See **INSTRUMENTS—Electrical Measuring**

BRIDGES—Wheatstone

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
Barnes Development Co., 213 W. Baltimore Pike, Lansdowne, Pa.
Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., Box 10, Morristown, N. J.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
Electro-Measurements, Inc., 7524 S. W. Macadam, Portland 1, Ore.
Eppley Lab., Inc., The, Newport, R. I.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684.
GRAY INSTRUMENT CO., 200 E. Church Lane, Philadelphia 44, Pa. ADV. PG. 643.
Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3 N. Y. ADV. PG. 676.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
Muirhead & Co., Ltd., Beckenham, Kent, England.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
Pimex Inc., 18 E. 60th St., New York 22, N. Y.
Rubicon Co., Ridge Ave., at 35th St., Philadelphia 29, Pa.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
STITCH CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
Tech Laboratoires, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.
Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

BROADCAST INPUT CONTROL EQUIPMENT

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
Collins Radio Co., Cedar Rapids, Iowa.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
Photo-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
Q.R.K. Electronic Products, 445 N. Circle Drive, Fresno 4, Calif.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. ADV. PG. 661.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

BRUSHES—Carbon & Graphite

Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza S., Long Island City, N. Y.
Electro Development Co., 14701 Keswick St., Van Nuys, Calif.
GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
Helwig Co., 2544 N. 30th St., Milwaukee 10, Wis.
Keystone Carbon Co., Inc., Saint Marys, Pa.
National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
St. Marys Carbon Company, State Rd., St. Marys, Pa.
Stackpole Carbon Co., St. Marys, Pa.
Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
U. S. Graphite Co., Div. of The Wickes Corp., Saginaw 32, Mich.

BRUSHES—Metal-Graphite

AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 615.
Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
Electro Development Co., 14701 Keswick St., Van Nuys, Calif.
Gibson Electric Co., The, Box J527, Delmont, Pa.
GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
Helwig Co., 2544 N. 30th St., Milwaukee 10, Wis.
Keystone Carbon Co., Inc., St. Marys, Pa.
National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
St. Marys Carbon Company, State Rd., St. Marys, Pa.
Stackpole Carbon Co., St. Marys, Pa.
Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
U. S. Graphite Co., Div. of The Wickes Corp., Saginaw 32, Mich.

BULBS—Miniature Lamp

See **LIGHTS—Dial, Panel & Pilot**

BUILDING BLOCKS

See **CIRCUITS—Computer Packaged**

BURNERS—Gas Fired

American Gas Furnace Co., 130 Spring St., Elizabeth, N. J.
Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
Maryland Lava Co., Ceramic Dept., Bel Air, Md.

BUS BAR SYSTEMS

Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
General Electric Co., Distribution Assemblies Dept., 41 Woodford Ave., Plainville, Conn.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
Janco Corp., 3111 Winona Ave., Burbank, Calif.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
WESTINGHOUSE ELECTRIC CORP., P.O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

BUSHINGS—Hermetically Sealed

Advanced Vacuum Products, Inc., Div. of General Ceramics Corp., 122 Liberty St., Stamford, Conn.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
Autel Electronics Co., P.O. Box 225, Linden, N. J.
BG Corp., The, 321 Broad Ave., Ridgefield, N. J.
Ceramaseal, Inc., Box 25, New Lebanon Center, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Valley Stream, N. Y. ADV. PG. 679.
Heldor Mfg. Corp., 238 Lewis St., Paterson, N. J.
Hermaseal Co., Inc., 1101 Lafayette St., Elkhart, Ind.
Hermetite Corp., 702 Beacon St., Boston 15, Mass.
Lundey Associates, Inc., 694 Main St., Waltham 54, Mass.
Mitronics, Inc., 1290 Central Ave., Hillside, N. J.
Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 670.

SPHERE CO., INC., THE, 25 Amity St., Little Falls, N. J. ADV. PG. 652.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.

BUSHINGS—Nonmetallic

Acc Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
Atlantic India Rubber Works, Inc., Dept. EL, 571 W. Polk St., Chicago 7, Ill.
BG Corp., The, 321 Broad Ave., Ridgefield, N. J.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Ceramaseal, Inc., Box 25, New Lebanon Center, N. Y.
CONTINENTAL-DIAMOND FIBRE CORP., Newark 100, Delaware. ADV. PG. 345-348.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
Deutsch Co., The, Electrical Connector Div., 7000 Avalon Blvd., Los Angeles 3, Calif.
DuCo Ceramics Co., Box 587, Butler 8, Pa.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
HEYMAN MFG. CO., Kenilworth 2, N. J. ADV. PG. 597.
I.E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
Isolantite Mfg. Corp., Stirling, N. J.
Lavelle Rubber Co., 424 N. Wood St., Chicago 2, Ill.
Lord Mfg. Co., 1635 W. 12th St., Erie, Pa.
Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
Mitronics, Inc., 1290 Central Ave., Hillside, N. J.
National Carbon Co., Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 1, N. Y.
National Vulcanized Fibre Co., Wilmington, Del.
Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 34, Pa.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park 111, ADV. PG. 530.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
St. Marys Carbon Company, State Rd., St. Marys, Pa.
SEALECTOR CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 484.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
Sinclair Mfg. Co., Chartley, Mass.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
SYNOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 589.
Synthane Corp., Oaks, Pa.
Taylor Fibre Co., Norristown, Pa.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
U. S. Graphite Co., Div. of The Wickes Corp., Saginaw 32, Mich.
Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.
Waterbury Companies, Inc., Waterbury 20, Conn.
Wilmington Fibre Specialty Co., New Castle, Del.

CABINETS

See **Also HOUSINGS**

CABINETS—Metal

A A Metal Products, Inc., 154 Elliot St., Box 716, Brattleboro, Vt.
A&P Metal Products Mfg. Corp., 111 Bloomingdale Rd., Hicksville, N. Y.
ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 644.
Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
Admiral Corp., 3800 Cortland St., Chicago 47 Ill.
AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 589.
ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 554.
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
Alnor Industries, Inc., 3901 W. 150th St., Cleveland 11, Ohio.
Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
Amco Engineering Co., 7335 Ainslie St., Chicago 31, Ill.
AMERICAN ALUMINUM CO., Sheffield St., Mountainside, N. J. ADV. PG. 604.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, VA. ADV. PG. 491.
Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.

Autel Electronics Co., P. O. Box 225, Linden, N. J.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 501.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
 Bennett Mfg. Co., Alden, N. Y.
 Bingham Mfg. Co., J. F., 69 Bay State Rd., Lawrence, Mass.
 Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
 Boyle Metalcraft Corp., 150 Sullivan St., Brooklyn 31, N. Y.
 Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 Bud Radio Inc., 2118 E. 55th St., Cleveland 3, Ohio.
 Carroll Pressed Metal Co., 133 Dewey St., Worcester, Mass.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 605.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.
 Collins Radio Co., Cedar Rapids, Iowa.
 Columbia Metal Box Co., 260 E. 143rd St., New York, N. Y.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
 Corry-Jamestown Mfg. Co., Corry, Pa.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 387.
 Croname, Inc., 1747 Grace St., Chicago 13, Ill.
 Cutler Metal Products Co., 1025 Line St., Camden, N. J.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.
 Donnelly Mfg. Co., Div. of The Indian Co., 580 Winter St., Waltham 54, Mass.
 Dukane Corp., St. Charles, Ill.
 Edo Corp., College Point, N. Y.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
 Elgin Metalformers Corp., 630 Congdon Ave., Elgin, Ill.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
FORMICA METAL PRODUCTS CO., Corporation Way, Medford 55, Mass. ADV. PG. 284.
 Gates Radio Co., Quincy, Ill.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 538.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.
 Hamilton Mfg. Co., Two Rivers, Wis.
 Helder Mfg. Corp., 238 Lewis St., Paterson, N. J.
 Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
 Hoffman Engineering Corp., Anoka, Minn.
 I. E. Manufacturing, 325 N. Hoynes Ave., Chicago 12, Ill.
 Industrial Systems Co., Matawan, N. J.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Longren Aircraft Co., 2576 W. Carson St., Torrance, Calif.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
 Majestic Aircraft Co., Moosup, Conn.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
 Metal-Craft, Inc., Burgess Place, Mountain View, N. J.
 Metalcraft, Inc., 65-33 Austin St., Rego Park 74, N. Y.
 Mid-West Conveyor Co., Inc., Metal Products Div., 7th & Sunshine Rd., Fairfax District, Kansas City, Kan.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Mobil Electronics Mfg. Co., 1111 State Rd., 67 E., Anderson, Ind.
 Muckle Mfg. Co., Owatonna 55, Minn.
NORTHEASTERN ENGINEERING INC., Manchester, N. H. ADV. PG. 518, 519.
 O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
 Olympic Metal Products Co., Inc., Third Ave., Alpha, N. J.
 Par-Metal Products Corp., 32-62 49th St., Long Island City 3, N. Y.
 Peterson & Neville, Inc., 365 Dorchester Ave., Boston, Mass.
 Pneumafil Corp., Charlotte, N. C.
 Powers Co., J. J., 1317 S. Fifth Ave., Maywood, Ill.
PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx 59, N. Y. ADV. PG. 646.
 REF Mfg. Corp., Jericho Turnpike, Mineola, N. Y.
 Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Riester & Thesmacher Co., 1510 W. 25th St., Cleveland 13, Ohio.
 Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
 Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.
 Stevens-Walden, Inc., 475 Shrewsbury St., Worcester 4, Mass.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
 Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Trimm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
 Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.
 White Aircraft Corp., Palmer, Mass.
 Wyco Metal Products, 6918 Beck Ave., North Hollywood, Calif.
ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 634.

CABINETS—Plastic

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
 American Plastics Corp., 342 Madison Ave., New York, N. Y.
 Calresin Corp., 4543 Brazil St., Los Angeles 39, Calif.
 Chicago Die Mold Div. of U. S. Rubber Co., 4300 New Haven Ave., Fort Wayne 4, Ind.
 Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
 Controlled Atmosphere Enclosures Corp., 230-11 141st Ave., Springfield Gardens 13, N. Y.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 387.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
 Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
 Feisenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
 Jodee Plastics Co., 213 Shepard Ave., Brooklyn 8, N. Y.
 Lennard Co., Inc., P. M., P.O. Box 56, Village Station, New York 14, N. Y.
 Metaplast Corp., Davisville Rd. at Pa. Turnpike, Hatboro, Pa.
 Molded Fibreglas Co., 4401 Benefit Ave., Ashtabula, Ohio.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Molded Products Div. of Admiral Corp., P. O. Box 338, West Chicago, Ill.
 Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.
 Panelyte Div., St. Regis Paper Corp., 261 Madison Ave., New York 16, N. Y.
 REF Mfg. Corp., Jericho Turnpike, Mineola, N. Y.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 530.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
 Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
 Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.

CABINETS—Wood

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
 Alnor Industries, Inc., 3901 W. 150th St., Cleveland 11, Ohio.
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
 Cambridge Pattern Works, Inc., 55 First St., Cambridge 41, Mass.
 Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Hamilton Mfg. Co., Two Rivers, Wis.
 Jensen Mfg. Co., 6601 S. Laramie Ave., Chicago 38, Ill.
 Lansing Sound, Inc., James B., 2439 Fletcher Drive, Los Angeles 26, Calif.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
 Powers Co., J. J., 1317 S. Fifth Ave., Maywood, Ill.
 R-J Audio Products, Inc., 80 Shore Rd., Port Washington, N. Y.
 River Edge Sales Corp., 80 Shore Rd., Port Washington, N. Y.
 Rumple, Inc., 15026 Oxnard St., Van Nuys, Calif.
 Scientific Wood Cabinet Co., 88 Holmes St., Belleville, N. J.
 Sieler Design Products, 10460 San Pablo Ave., El Cerrito, Calif.
 Steger Furniture Mfg. Co., Steger, Ill.
 Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.
 Telefoto Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 514.
 Wells-Gardner & Co., 2701 N. Kildare Ave., Chicago 39, Ill.
 Woodcraft Corp., 501 Salzburg Ave., Bay City, Mich.

CABLE

See Also WIRE

CABLE ASSEMBLIES

Acme Teletronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 615.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
ALLIED ALLEGRI, INC., 141 River Rd., Nutley, N. J. ADV. PG. 650.
 Allied Industries, Inc., 25th & Woodland Ave., Louisville 10, Ky.
 Amelco, Inc., 2040 Colorado Ave., Santa Monica, Calif.
 American Chain & Cable Co., Inc., 601 Stephenson Bldg., Detroit 2, Mich.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
 Artisan Electronics Corp., 171 Ridgedale Ave., Morris-town, N. J.
 Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
AUTOMATIC METAL PRODUCTS CORP., 315 Berry St., Brooklyn 11, N. Y. ADV. PG. 626.
 Automatic Processing Corp., 1335 N. Wells St., Chicago, Ill.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.
 Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
 Berco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Bliss Electronic Corp., Box 366, Sussex, N. J.
BRAND & CO., INC., WILLIAM, 41 North St., William-mantic, Conn. ADV. PG. 199.
 Buffalo Electronics Corp., 37 Franklin St., Buffalo 2, N. Y.
 Buggie, Inc., H. H., P. O. Box 817, Toledo 1, Ohio.
 Cable Specialist of Conn., 474 Prospect Ave., Hartford, Conn.
 Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.
COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicks-ville, N. Y. ADV. PG. 532.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 20.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 387.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
 Daystrom Electric Corp., 807 Main St., Poughkeepsie, N. Y.
 Decatur Electronics Industries Corp., 203 Orinco Drive, Brightwater, N. Y.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
 Dit-Mco, Inc., Electronics Div., 911 Broadway, Kansas City 5, Mo.
DOTY ACOUSTICAL ELECTRONIC LABS, INC., 431 Broome St., New York 13, N. Y. ADV. PG. 676.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
 Eastern Specialty Co., Philadelphia 40, Pa.
 Eberline Instrument Division, P. O. Box 279, Santa Fe, N. M.
 Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
 Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y.
 Electron Products, Inc., 430 N. Halstead St., Pasadena, Calif.
 Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
 Electronic Products Corp., 322 State St., Santa Barbara, Calif.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
 Eltron Corp., St. Anne, Ill.
 Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
 Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
 General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
 General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.

CABLE CLAMPS & CLIPS

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Gerlyn Engineering Co., 2151 N. Damen Ave., Chicago 47, Ill.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
HITEMP WIRES, INC., 26 Windsor Ave. Mineola, N. Y. ADV. PG. 386.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.
Hunter-Bristol Corp., Bristol, Pa.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 693.
Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
Kreutzer Industries, 1835 N. Hoyle Ave., Chicago 47, Ill.
Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.
Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
LING ELECTRONICS, INC., 5170 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Microdot, Inc., 220 Pasadena Ave., South Pasadena, Calif.
Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
Mutron Corp., 125 Perkins Ave., Brockton, Mass.
National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
Neosil Products Div. of Rubber Associates, Inc., 745 Fifth Ave., New York 22, N. Y.
Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.
North Electric Co., 553 S. Market St., Galion, Ohio.
Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.
PACIFIC AUTOMATION PRODUCTS, INC., 1000 Air Ways, Glendale 1, Calif. ADV. PG. 203.
Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 72.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
Plastic Wire & Cable Corp., Jewett City, Conn.
PROGRESS ELECTRONICS CO., 296 Broadway, New York 7, N. Y. ADV. PG. 689.
Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
Republic Electronic Industries Corp., 31 W. 27th St., New York 1, N. Y.
Roesch, Douglas, Div. of Hall-Scott, Inc., 2950 N. Ontario St., Burbank, Calif.
Rofan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Rosenau, Harris & Co., Ontario & "I" Sts., Philadelphia 34, Pa.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Royal Electric Corp., Pawtucket, R. I.
Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
Sheltered Workshop, 2521 5th St., Santa Monica, Calif.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
Sittler Corp., 18 N. Ada St., Chicago 7, Ill.
Smith Mfg. Co., J. & H., Little Britain Rd., Newburgh, N. Y.
Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 619.
Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.
Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
United Manufacturing & Service Co., 405 S. Sixth St., Milwaukee 4, Wis.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
Vector Manufacturing Co., 5616 Lawndale Ave., Houston 23, Texas.
Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
Wheeler Insulated Wire Co., Inc., The, Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.
Whitaker Cable Corp., Kansas City 16, Mo.

CABLE CLAMPS & CLIPS

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BURNODY CORPORATION, Norwalk, Conn. ADV. PG. 441.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
COMMERCIAL PLASTICS CO., 945 George St., Chicago 14, Ill. ADV. PG. 540.
Crosby-Laughlin Division, P. O. Box 570, Fort Wayne, Ind.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 538.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., Electronic Div., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
Holub Industries, Inc., 414 DeKalb Ave., Sycamore, Ill.
I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
NATIONAL TEL-TRONICS CORP., 35 Casimir Ave., Yonkers, N. Y. ADV. PG. 642.
Newcomb Springs Corp., The, 177 E. Hawthorne Ave., Valley Stream, N. Y.
SCINTILLA DIVISION, BENDIX AVIATION CORP., Sidney, N. Y. ADV. PG. 337.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Stanley-Judd Div. of Stanley Works, Wallingford, Conn.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.
Taffet Radio & Telephone Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
Tinnerman Products, Inc., P. O. Box 6688, Dept. No. 16, Cleveland 1, Ohio.
Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
Weckesser Co., 5701 Northwest Highway, Chicago 50, Ill.
Whitaker Cable Corp., Kansas City 16, Mo.

CABLE-Coaxial Flexible

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
AMERICAN SUPER-TEMPERATURE WIRES, INC., W. Canal St., Winooski, Vt. ADV. PG. 647.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. 546.
Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
Bernco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BOSTON INSULATED WIRE & CABLE CO., 65 Bay St., Boston 25, Mass. ADV. PG. 456.
BRAND & CO., INC., WILLIAM, 41 North St., Williamantic, Conn. ADV. PG. 199.
Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
CHESTER CABLE CORP., Hill St., Chester, N. Y. ADV. PG. 436.
Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
Continental Wire Sales Corp., Wallingford, Conn.
Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y.
Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.
General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 386.
Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
INTERSTATE ELECTRONICS, INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 462.
Jefferson Products Corp., Pleasant Valley Rd., Sutton, Mass.

1957-1958 LISTINGS OF

JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. ADV. PG. 574.
Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
Kistler Instrument Corp., 15 Webster St., North Tonawanda, N. Y.
Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
Microdot, Inc., 220 Pasadena Ave., South Pasadena, Calif.
Mohawk Wire & Cable Corp., 320 River St., Fitchburg, Mass.
Okonite Co., The, Canal St., Passaic, N. J.
PACIFIC AUTOMATION PRODUCTS, INC., 1000 Air Ways, Glendale, Calif. ADV. PG. 203.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 72.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., Fort Wayne, Ind. ADV. PG. 54, 55.
Plastic Wire & Cable Corp., Jewett City, Conn.
Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
Precision Tube Co., Inc., North Wales, Pa.
PROGRESS ELECTRONICS CO., 296 Broadway, New York 7, N. Y. ADV. PG. 689.
REX CORP., THE, Hayward Rd. West Acton, Mass. ADV. PG. 551.
Rockbestos Products Corp., Nicoll & Canner Sts. New Haven 4, Conn.
Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
Sequoia Process Corp., 2201 Bay Rd., Redwood City, Calif.
Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.
Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
SURPRENANT MANUFACTURING CO., Clinton, Mass. ADV. PG. 449.
TENSOLITE INSULATED WIRE CO., 190 Main St., Tarrytown, N. Y. ADV. PG. 261-264.
Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
Times, Wire & Cable Co., Wallingford, Conn.
Transradio, Ltd., 138-A Cromwell Rd., London SW 7, England.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
Vector Manufacturing Co., 5616 Lawndale Ave., Houston 23, Texas.
Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.
Warren Wire Co., Pownal, Vt.

CABLE-Coaxial Rigid

AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
Bernco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BRAND & CO., INC., WILLIAM, 41 North St., Williamantic, Conn. ADV. PG. 199.
Continental Wire Sales Corp., Wallingford, Conn.
Dielectric Products Engineering Co., Inc., Raymond, Mass.
General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
Jefferson Products Corp., Pleasant Valley Rd., Sutton, Mass.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., Fort Wayne, Ind. ADV. PG. 54, 55.
Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
Prodell, Inc., 307 Bergen Ave., Kearny, N. J.
Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
Sequoia Process Corp., 2201 Bay Rd., Redwood City, Calif.
Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.
TENSOLITE INSULATED WIRE CO., 190 Main St., Tarrytown, N. Y. ADV. PG. 261-264.
Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
Vector Manufacturing Co., 5616 Lawndale Ave., Houston 23, Texas.

CABLE-Insulated

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
Aero Research Instrument Co., 315 N. Aberdeen St., Chicago 7, Ill.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
AMERICAN SUPER-TEMPERATURE WIRES, INC., Canal St., Winooski, Vt. ADV. PG. 647.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
Ansonia Wire & Cable Co., 111 Martin St., Ashford, R. I.
Apex Wire & Cable Corp., 237 37th St., Brooklyn 1, N. Y.

ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BOSTON INSULATED WIRE & CABLE CO., 65 Bay St., Boston 25, Mass. ADV. PG. 456.

BRAND & CO., INC., WILLIAM, 41 North St., Williamantic, Conn. ADV. PG. 199.
Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.

Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.

Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.

Continental Wire Sales Corp., Wallingford, Conn.
Copperweld Steel Co., Wire & Cable Div., Glassport, Pa.

Diamond Wire & Cable Co., Sycamore, Ill.
Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.

Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.

Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.

General Cable Corp., 420 Lexington Ave., New York 17, N. Y.

General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.

General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 386.

Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.

Jefferson Products Corp., Pleasant Valley Rd., Sutton, Mass.

Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.

Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.

LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 606.

Miller Electric Co., 120 Main St., Pawtucket, R. I.

Mohawk Wire & Cable Corp., 320 River St., Fitchburg, Mass.

Okonite Co., The Canal St., Passaic, N. J.

Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.

PACIFIC AUTOMATION PRODUCTS, INC., 1000 Air Way, Glendale 1, Calif. ADV. PG. 203.

PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 72.

PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., Fort Wayne, Ind. ADV. PG. 54, 55.

Plastic Wire & Cable Corp., Jewett City, Conn.

Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.

Precision Tube Co., Inc., North Wales, Pa.

PROGRESS ELECTRONICS CO., 296 Broadway, New York 7, N. Y. ADV. PG. 689.

REVERE CORP. OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.

REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.

Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.

Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.

Roebing's Sons Corp., John A., 640 Broad St., Trenton 2, N. J.

Roesch, Douglas, Div. of Hall-Scott, Inc., 2950 N. Ontario St., Burbank, Calif.

Rome Cable Corp., Ridge St., Rome, N. Y.

Royal Electric Corp., Pawtucket, R. I.

Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.

Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.

Sequoia Process Corp., 2201 Bay Rd., Redwood City, Calif.

Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.

Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W.C. 2, England.

SURRENANT MANUFACTURING CO., Clinton, Mass. ADV. PG. 449.

TENSOLITE INSULATED WIRE CO., 190 Main St., Tarrytown, N. Y. ADV. PG. 261-264.

Tevco Insulated Wire 108 Prospect Ave., Burbank, Calif.

Times, Wire & Cable Co., Wallingford, Conn.

Transradio, Ltd., 138A Cromwell Rd., London, S.W. 7, England.

Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.

Vector Manufacturing Co., 5616 Lawndale Ave., Houston 23, Texas.

Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.

Warren Wire Co., Pownall, Vt.

Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.

Whitaker Cable Corp., Kansas City 16, Mo.

Whitney Blake Co., New Haven 14, Conn.

AMERICAN SUPER-TEMPERATURE WIRES, INC., W. Canal St., Winooski, Vt. ADV. PG. 647.

AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.

Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.

Ansonia Wire & Cable Co., 111 Martin St., Ashton, R. I.

ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.

Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.

BOSTON INSULATED WIRE & CABLE CO., 65 Bay St., Boston 25, Mass. ADV. PG. 456.

BRAND & CO., INC., WILLIAM, 41 North St., Williamantic, Conn. ADV. PG. 199.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.

Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.

Continental Wire Sales Corp., Wallingford, Conn.

Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.

General Cable Corp., 420 Lexington Ave., New York 17, N. Y.

Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.

Jefferson Products Corp., Pleasant Valley Rd., Sutton, Mass.

Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.

Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.

Microdot, Inc., 220 Pasadena Ave., South Pasadena, Calif.

Mohawk Wire & Cable Corp., 320 River St., Fitchburg, Mass.

Okonite Co., The Canal St., Passaic, N. J.

Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.

PACIFIC AUTOMATION PRODUCTS INC., 1000 Air Way, Glendale 1, Calif. ADV. PG. 203.

Pelphs Dodge Copper Products Co., 300 Park Ave., New York 22, N. Y.

Plastic Wire & Cable Corp., Jewett City, Conn.

Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.

REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.

Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.

Sequoia Process Corp., 2201 Bay Rd., Redwood City, Calif.

Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.

TENSOLITE INSULATED WIRE CO., 190 Main St., Tarrytown, N. Y. ADV. PG. 261-264.

Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.

Times, Wire & Cable Co., Wallingford, Conn.

Transradio, Ltd., 138A Cromwell Rd., London, S.W. 7, England.

Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.

Vector Manufacturing Co., 5616 Lawndale Ave., Houston 23, Texas.

Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.

Whitaker Cable Corp., Kansas City 16, Mo.

Whitney Blake Co., New Haven 14, Conn.

General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.

General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.

Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.

Jefferson Products Corp., Pleasant Valley Rd., Sutton, Mass.

Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.

Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.

Miller Electric Co., 120 Main St., Pawtucket, R. I.

Mohawk Wire & Cable Corp., 320 River St., Fitchburg, Mass.

Okonite Co., The Canal St., Passaic, N. J.

PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 72.

Plastic Wire & Cable Corp., Jewett City, Conn.

Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.

Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.

REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.

Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.

Sileo Process Corp., 2201 Bay Rd., Redwood City, Calif.

Shure Brothers, Inc., 246 Hartley Ave., Evanston, Ill.

Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.

Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.

Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.

SURRENANT MANUFACTURING CO., Clinton, Mass. ADV. PG. 449.

Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.

Times, Wire & Cable Co., Wallingford, Conn.

Transradio, Ltd., 138A Cromwell Rd., London, S.W. 7, England.

Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.

Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.

Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.

Whitaker Cable Corp., Kansas City 16, Mo.

Whitney Blake Co., New Haven 14, Conn.

CABLE-Shielded

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.

Alpha Metals, Inc., 60 Water St., Jersey City, N. J.

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.

American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.

AMERICAN SUPER-TEMPERATURE WIRES, INC., W. Canal St., Winooski, Vt. ADV. PG. 647.

AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.

Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.

Ansonia Wire & Cable Co., 111 Martin St., Ashton, R. I.

ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.

Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.

Bernco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.

BOSTON INSULATED WIRE & CABLE CO., 65 Bay St., Boston 25, Mass. ADV. PG. 456.

BRAND & CO., INC., WILLIAM, 41 North St., Williamantic, Conn. ADV. PG. 199.

Breeze Corps, Inc., 700 Liberty Ave., Union, N. J.

CHESTER CABLE CORP., Hill St., Chester, N. Y. ADV. PG. 436.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.

Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.

Continental Wire Sales Corp., Wallingford, Conn.

CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 20.

Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.

Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.

Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.

General Cable Corp., 420 Lexington Ave., New York 17, N. Y.

General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.

General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.

General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 386.

Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.

INTERSTATE ELECTRONICS, INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 462.

Jefferson Products Corp., Pleasant Valley Rd., Sutton, Mass.
 Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
 Kistler Instrument Corp., 15 Webster St., North Tonnawanda, N. Y.
 Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 606.
 Microdot, Inc., 220 Pasadena Ave., South Pasadena, Calif.
 Mohawk Wire & Cable Corp., 320 River St., Fitchburg, Mass.
 Okonite Co., The Canal St., Passaic, N. J.
 Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 72.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., Fort Wayne, Ind. ADV. PG. 54, 55.
 Plastic Wire & Cable Corp., Jewett City, Conn.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Precision Tube Co., Inc., North Wales, Pa.
PROGRESS ELECTRONICS CO., 296 Broadway, New York 7, N. Y. ADV. PG. 689.
 Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
REVERE CORP. OF AMERICA, SUB OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
 Rome Cable Corp., Ridge St., Rome, N. Y.
 Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
 Sequoia Process Corp., 2201 Bay Rd., Redwood City, Calif.
 Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W.C. 2, England.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TENSOLITE INSULATED WIRE CO., INC., 190 Main St., Tarrytown, N. Y. ADV. PG. 261-264.
 Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
 Times, Wire & Cable Co., Wallingford, Conn.
 Transradio, Ltd., 138A Cromwell Rd., London SW 7, England.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
U.S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 Vector Manufacturing Co., 5616 Lawndale Ave., Houston 23, Texas.
 Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.
 Warren Wire Co., Pownal, Vt.
 Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.
 Whitaker Cable Corp., Kansas City 16, Mo.
 Whitney Blake Co., New Haven 14, Conn.

CABLE-Transmission Line

Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
 Ampli-Vision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York, N. Y. ADV. PG. 501.
BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 456.
BRAND & CO., INC., WILLIAM, 41 North St., William-mantic, Conn. ADV. PG. 199.
 Channel Master Co., Ellenville, N. Y.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Copperweld Steel Co., Wire & Cable Div., Glassport, Pa.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 20.
 Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.
 Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
INTERSTATE ELECTRONICS, INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 462.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
 Jefferson Products Corp., Pleasant Valley Rd., Sutton, Mass.
 Jersey Specialty Co., Inc., Mountainview, N. J.

Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
 Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
 Microdot, Inc., 220 Pasadena Ave., South Pasadena, Calif.
 Miller Electric Co., 120 Main St., Pawtucket, R. I.
 Mohawk Wire & Cable Corp., 320 River St., Fitchburg, Mass.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 72.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., Fort Wayne, Ind. ADV. PG. 54, 55.
 Plastic Wire & Cable Corp., Jewett City, Conn.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Sequoia Process Corp., 2201 Bay Rd., Redwood City, Calif.
 Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.
 Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
 Times, Wire & Cable Co., Wallingford, Conn.
 Transradio Ltd., 138A Cromwell Rd., London S. W. 7, England.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.
 Whitney Blake Co., New Haven 14, Conn.

CABLE-uHF

AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
 Ampli-Vision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BOSTON INSULATED WIRE & CABLE CO., 65 Bay St., Boston 25, Mass. ADV. PG. 456.
BRAND & CO., INC., WILLIAM, 41 North St., William-mantic, Conn. ADV. PG. 199.
 Channel Master Co., Ellenville, N. Y.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 20.
 Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.
 Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
INTERSTATE ELECTRONICS, INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 462.
 Jefferson Products Corp., Pleasant Valley Rd., Sutton, Mass.
 Jersey Specialty Co., Inc., Mountainview, N. J.
 Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
 Microdot, Inc., 220 Pasadena Ave., South Pasadena, Calif.
 Mohawk Wire & Cable Corp., 320 River St., Fitchburg, Mass.
 Phelps Dodge Copper Products Co., 300 Park Ave., New York 22, N. Y.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Sequoia Process Corp., 2201 Bay Rd., Redwood City, Calif.
 Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
 Times, Wire & Cable Co., Wallingford, Conn.
 Transradio, Ltd., 138A Cromwell Rd., London S. W. 7, England.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.
 Whitney Blake Co., New Haven 14, Conn.

CALIBRATORS-Crystal

A. R. F. Products, Inc., 7627 Lake St., River Forest, Ill.
 B & K Mfg. Co., 3726 N. Southport Ave., Chicago 13, Ill.

BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
 Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Ferris Instrument Co., 110 Cornelia St., Boonton, N. J.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Measurement Engineering Ltd., Annapolis, Ontario, Canada.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 94.
 Metronix, Inc., Mill Lane, Waterford, Conn.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
PROBSCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 555.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
 Springer Aircraft Radio Co., Earl W., Route 11, Box 330, Sky Harbor Airport, Indianapolis, Ind.
TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.

CALIBRATORS-Frequency

Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
 Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
 Electro-Mechanical Research Inc., Ridgefield, Conn.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Rd. Clifton, N. J. ADV. PG. 355-357.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
 Metronix, Inc., Mill Lane, Waterford, Conn.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
PROBSCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 555.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.

CALIBRATORS-Radar Range

CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Rutherford Electronics Co., 8944 Lindblade St., Culver City, Calif.
 Servonics, Inc., 822 N. Henry St., Alexandria, Va.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
 Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.

CALIBRATORS-Sweep

CALIBRATORS-uHF
 See INSTRUMENTS-Electrical Measuring

CALIBRATORS-Voltage

B & K Mfg. Co., 3726 Southport Ave., Chicago 13, Ill.

BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 159.
Berkshire Laboratories, 580 Bank Village, Greenville, N. H.

COLORSTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
Dubrow Development Co., 235B Penn St., Burlington, N. J.

DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.

ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.

EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 233-235.

Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.

GERTSCH PRODUCTS, INC., 3211 S. La. Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684.

HEATH CO. A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.

KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.

Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 369, 370.

New York Transformer Co., Inc., Third Ave., Alpha, N. J.

Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

RADIO FREQUENCY LABS, INC., Boonton 2, N. J. ADV. PG. 555.

RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.

Rese Engineering Corp., 731 Arch St., Philadelphia 6, Pa.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

CALIBRATORS—vswwr

Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.

California Technical Industries, 1421 Old County Rd., Belmont, Calif.

CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 380, 381.

Defance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.

Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.

Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.

RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.

Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.

Technical Material Corp., P. O. Box 142, Mamaroneck, N. Y.

TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.

CALORIMETERS—Microwave

See MICROWAVE ACCESSORIES

CAMERAS—Data Recording

Abrams Instrument Corp., 600-620, E. Shiawassee St., Lansing, Mich.

Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.

Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.

Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.

Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.

Fairchild Camera & Instrument Corp., Reconnaissance Systems Div., Robbins Lane, Syosset, N. Y.

Flight Research, Inc., P. O. Box 1-F, Richmond 1, Va.

Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.

Maurer, Inc., J. A., 37-01 31st St., Long Island City 1, N. Y.

Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.

PHOTOGRAPHIC PRODUCTS, INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.

CAMERAS—Oscilloscope

Airmec, Ltd., High Wycombe, Buckinghamshire, England.

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.

Aremac Associates, 50 S. San Gabriel, Pasadena 10, Calif.

Beckman & Whitley, Inc., 913 San Carlos Ave., San Carlos, Calif.

Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.

BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.

DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.

Edgerton, Gernsmausen & Grier, Inc., 160 Brookline Ave., Boston, Mass.

Electro-Medical Lab., Inc., South Woodstock 8, Vt.

Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.

Fairchild Camera & Instrument Corp., Industrial Camera Div., 88-06 Van Wyck Expressway, Jamaica 1, N. Y.

Flight Research, Inc., P. O. Box 1-F, Richmond 1, Va.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.

Grass Instrument Co., 101 Old Colony Ave., Quincy, Mass.

LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.

Maurer, Inc., J. A., 37-01 31st St., Long Island City 1, N. Y.

Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.

MULLARD OVERSEAS, LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London W.C. 2, England ADV. PG. 560.

PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.

Perkin-Elmer Corp., The Main Ave., Norwalk, Conn.

PHOTOGRAPHIC PRODUCTS, INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.

Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.

TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

CAMERAS—Television

Blonder-Tongue Laboratories, Inc., 9-25 Ailing St., New York 2, N. J.

Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.

Dage Television Div. of Thompson Products, Inc., W. 10th St., Michigan City, Ind.

DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.

Federal Telecommunication Labs., a Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.

Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.

General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.

General Precision Laboratory, Inc., 63 Bedford Rd., Pleasantville, N. Y.

Hallamore Electronics Co., 8352 Brookhurst Ave., Anaheim, Calif.

Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.

Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.

Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.

TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

CAMERAS—X-Ray

BRACKE-SEIB X-RAY CO., INC., 16 Pelham Bay Parkway, Pelham Manor, N. Y. ADV. PG. 590.

Central Research Laboratories, Inc., Red Wing, Minn.

Fairchild Camera & Instrument Corp., Industrial Camera Div., 88-06 Van Wyck Expressway, Jamaica 1, N. Y.

Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.

Philips Electronics, Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.

PHOTOGRAPHIC PRODUCTS, INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.

Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.

X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

CANS

NOTE:

(h) indicates hermetically sealed types

ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 554.

Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.

Amatom Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.

AMERICAN ALUMINUM CO., Sheffield St.,-C, Mountaine, N. J. ADV. PG. 604.

Autel Electronics Co., P. O. Box 225, Linden, N. J. (h)

Barnes Metal Products Co., 4425 W. 16th St., Chicago 23, Ill.

Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.

Continental Can Co., Inc., 100 E. 42nd St., New York 17, N. Y.

Ellis & Sons Inc., George D., 4002 N. American St., Philadelphia 40, Pa. (h)

FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.

GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 175 Berger St., Wood-Ridge, N. J. ADV. PG. 538.

GENERAL HERMETIC SEALING CORP., 99-E Hawthorne, Valley Stream, N. Y. ADV. PG. 679.

Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.

GREAT EASTERN METAL PRODUCTS CO., 22 Woodworth Ave., Yonkers, N. Y. ADV. PG. 696.

Heldor Mfg. Corp., 238 Lewis St., Paterson, N. J. (h)

HUDSON TOOL & DIE CO., INC., 118 S. 14th St., Newark, N. J. ADV. PG. 185.

KAUPP & SONS, C. B., 32 Newark Way, Maplewood, N. J. ADV. PG. 275.

Kling Metal Spinning Co., 247 Centre St., New York 13, N. Y.

Livingston Electronic Corp., Livingston, N. J. (h)

McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J. (h)

Metpro, Inc., R. I., 230 Toronto Ave., Providence, R. I.

Mid-West Conveyor Co., Inc., Metal Products Div., 7th & Sunshine Rd., Fairfax District, Kansas City, Kan.

Northern Metal Products Co., 9597 W. Grand Ave., Franklin Park, Ill.

Olympic Metal Products Co., Inc., Third Ave., Alpha, N. J.

Paul & Beekman, Inc., 1801 Courtland St., Philadelphia 40, Pa.

PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.

Repaph Pacific Div. of Arnold Engineering Co., 641 E. 61st St., Los Angeles 1, Calif.

Silicone Insulation, Inc., 1385 Seabury Ave., Bronx 61, N. Y.

Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill. (h)

SPHERE CO., INC., THE, 25 Amity St., Little Falls, N. J. ADV. PG. 652.

Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.

Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.

Sun Tube Corp., Washington, N. J. (h)

SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 476.

Worcester Pressed Aluminum Corp., 13-15 Hope Ave., Worcester, Mass.

ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 634.

CAPACITORS

NOTE:

Throughout all capacitor listings

(h) indicates hermetically sealed types

(p) indicates pressure types

(v) indicates vacuum types

Capacitors, Fixed

1. Ceramic

2. Decade

3. Electrolytic

3a. Electrolytic, Subminiature

4. Energy Storage

5. Feed Through

6. Fixed Composition

7. Gas Filled

8. Glass

9. High Voltage

10. Metallized

11. Mica

12. Paper

13. Plastic

14. Power Factor

15. Precision Air

16. Pulse Forming Network

17. Silvered Mica

18. Tantalum

19. Vacuum

Capacitors, Variable

20. Trimmer-Air

21. Trimmer-Ceramic

22. Trimmer-Mica

23. Trimmer-Vacuum

24. Tuning-Receiving

25. Tuning-Transmitter

ACF Electronics, 800 N. Pitt St., Alexandria, Va. 1-9-13.

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. 1-3-3a-4-5-9-11-12-13-14-16-17-18-21.

Airborne Accessories Corp., 1414 Chestnut Ave., Hillside, N. J. 10. (h)

Ajax Condenser Corp., 10905 Chandler Blvd., North Hollywood, Calif. 3-3a-12. (h)

All Star Products, Inc., Defiance, Ohio. 20-24.

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. 1-5. ADV. PG. 194.

American Condenser Co., 4410 Ravenswood Ave., Chicago 40, Ill. 3-5-12. (h)

AMP INC., 2100 Paxton St., Harrisburg, Pa. 16. ADV. PG. 339.

AMP INC., CHEMICALS & DIELECTRICS DIV., 155 Park St., Elizabethtown, Pa. 9-16. ADV. PG. 255 (h)

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. 9-19. ADV. PG. 290, 291. (v)

ARCO ELECTRONICS, INC., 64 White St., New York 13, N. Y. 1-5-9-11-12-17-21-22. ADV. PG. 180.

Arnhold Ceramics Inc., 1 E. 57th St., New York 22, N. Y. 12-17.

ASTRON CORP., 255 Grant Ave., East Newark, N. J. 1-3-3a-10-12-13. ADV. PG. 329. (h)
 Axel Bros., Electronics Div., 134-20 Jamaica Ave., Jamaica, N. Y. 4-9-10-12-13-16. (h)
 Balco Research Laboratories, 49-53 Edison Place, Newark 2, N. J. 6-10-13. (h)
 Barco, Inc., Box 1222, Milwaukee 1, Wis. 3a. (h)
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. 15-25. (h)
 Basic Tool Engineering, Inc., 4156 S. Main St., Los Angeles, Calif. 1. (h)
 BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. 15. ADV. PG. 562. (h)
 British Radio Electronics Ltd., 1833 Jefferson Place, N.W., Washington 6, D. C. 1-17-20. (h)
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio. 20-25. (h)
 CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. 1-21. ADV. PG. 150. (h)
 Cardwell Co., Allen D., The, 97 Whiting St., Plainview, Conn. 15-20-24-25. (h)
 CENTRALAB DIV., GLOBE-UNION INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. 1-5-9-21. ADV. PG. 419. (h)
 CHICAGO CONDENSER CORP., 3255 W. Armitage Ave., Chicago 47, Ill. 5-9-10-12-13-14-16. ADV. PG. 420. (h)
 COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. 9. ADV. PG. 532. (h)
 Condenser Products Div., New Haven Clock & Watch Co., 140 Hamilton St., New Haven, Conn. 4-19-13-14-15-16. (h)(v)
 CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. 1-2-3-3a-4-5-6-9-10-11-12-13-14-16-17-18. ADV. PG. 111. (h)
 CORNING GLASS WORKS, Corning, N. Y. 4-8-9-16-20. ADV. PG. 390. (h)
 CORSON ELECTRIC MFG. CORP., 540 39th St., Union City, N. J. 4-9-12-13-16. ADV. PG. 587. (h)
 COSMIC RADIO CORP., 853 Whittier St., New York 59, N. Y. 3-12. ADV. PG. 368. (h)
 DEARBORN ELECTRONIC LABORATORIES, INC., 231 S. LaSalle St., Chicago 4, Ill. 4-5-6-9-10-12-13. ADV. PG. 368. (h)
 Diectron Div. of The Gudeman Co., 2669, S. Myrtle Ave., Monrovia, Calif. 1-9-16. (h)
 DOLINKO & WILKENS, INC., 1901-7 Summit Ave., Union City, N. J. 9-19. ADV. PG. 508. (h)
 Double "E" Products Co., 216 Standard St., El Segundo, Calif. 10-11-12-13. (h)
 Dumont-Airplane & Marine Instruments, Inc., 15 William St., New York 5, N. Y. 3-3a-4-9-12-13-14. (h)
 Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y. 13. (h)
 ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. 16. ADV. PG. 63. (h)
 EITEL-McCULLOUGH, INC., San Bruno, Calif. 19-23. ADV. PG. 128, 129. (v)
 ELECTRA MFG. CO., RESISTOR DIV., 4051 Broadway, Kansas City, Mo. 1-9. ADV. PG. 338. (h)
 ELECTRO-CAPACITORS CO., 10132 Edes Ave., Oakland 3, Calif. 3-4-14. ADV. PG. 204. (h)
 Electro-Measurements, Inc., 7524 S.W. Macadam, Portland 1, Ore. 2. (h)
 ELECTRO MOTIVE MFG. CO., S. Park & John St., Willimantic, Conn. 1-5-11-12-17-22. ADV. PG. 423. (h)
 Electron Products, Inc., 430 N. Halstead St., Pasadena, Calif. 2-4-5-9-10-12-14. (h)(p)(v)
 ELECTRONIC FABRICATORS, INC., 682 Broadway, New York 12, N. Y. 13. ADV. PG. 248. (h)
 Endevco Corp., 161 E. California St., Pasadena, Calif. 2. (h)
 ERIE RESISTOR CORP., Erie 6, Pa. 1-5-6-9-11-13-17-20-21-22. ADV. PG. 170, 171. (h)
 Fansteel Metallurgical Corp., 2200 Sheridan Road, North Chicago, Ill. 18. (h)
 Fast & Co., John E., 3538 N. Kedzie Ave., Chicago 18, Ill. 1-5-9-12-13-14. (h)
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill. 21. (h)
 FILM CAPACITORS, INC., 3400 Park Ave., New York 56, N. Y. 2-9-13. ADV. PG. 246. (h)
 FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. 5-9-10-12-13-16. ADV. PG. 433. (h)
 FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. 2. ADV. PG. 460. (h)
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 2-3-3a-4-5-6-9-11-12-13-16-18. ADV. PG. 1-12. (h)
 GENERAL ELECTRIC CO., SPECIALTY ELECTRONIC COMPONENTS DEPT., W. Genesee St., Auburn, N. Y. 1. ADV. PG. 18. (h)
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. 2-13-15. ADV. PG. 316, 317. (h)
 Girard-Hopkins, 1000 40th Ave., Oakland 1, Calif. 12-14. (h)
 Glenco Corp., A Sub. of Gulton Industries, Metuchen, N. J. 1. (h)
 Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J. 24-25. (h)
 GOOD-ALL ELECTRIC MFG. CO., 112 W. First St., Ogallala, Neb. 1-4-5-9-12-13. ADV. PG. 124. (h)
 Gudeman Co., 340 W. Huron St., Chicago 10, Ill. 1-3-3a-4-5-6-9-10-12-13-14. (h)
 GULTON INDUSTRIES, INC., Metuchen, N. J. 1. ADV. PG. 425. (h)
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif. 5. (h)
 HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. 20-24-25. ADV. PG. 265. (h)
 Hansen Electronics Co., 7117 Santa Monica Blvd., Los Angeles 46, Calif. 6. (h)
 High Fidelity Products, Box 131, Owensboro, Ky. 2.

Hopkins Engineering Co., 12900 Foothill Blvd., San Fernando, Calif. 2-5-6-9-10-12-13-14. (h)
 ILLINOIS CONDENSOR CO., 1616 N. Throop St., Chicago 22, Ill. 1-3-3a-4-12. ADV. PG. 431. (h)
 Industrial Condenser Corp., 3243 N. California Ave., Chicago 18, Ill. 12-13-14. (h)
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J. 2. (h)
 Industron Corp., 55 Needham St., Newton Highlands, Mass. 25. (h)
 International Electronic Industries, Inc., Box 1368, Nashville, Tenn. 3-5a. (h)
 JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. 21. ADV. PG. 53. (h)
 Jeffers Electronics Div. of Speer Carbon Co., DuBois, Pa. 6. (h)
 JENNINGS RADIO MFG. CORP., 970 McLaughlin Ave., P. O. Box 1278, San Jose 8, Calif. 9-19-23-25. ADV. PG. 406, 407. (v)
 Jodee Plastics Corp., 213 Shepherd Ave., Brooklyn 8, N. Y. 13. (h)
 Johanson Mfg. Co., Box 329, Boonton, N. J. 20-24-25. (h)
 Johnson Co., E. F., Waseca, Minn. 9-20-25. (h)
 Landsverk Electrometer Co., 550 W. Garfield Ave., Glendale 4, Calif. 13. (h)(v)
 LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. 7-9-25. ADV. PG. 276, 277. (p)
 Leclanche S. A., Yverdon, Switzerland. 1-2-3-4-5-9-12-13-14-16. (h)
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa. 2-11-15. (h)
 Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y. 17. (h)
 London Electric Mfg. Co., Ltd., 80 Shore Rd., Port Washington, N. Y. 1-5-11-17. (h)
 Luther Electronic Mfg. Co., 5728 W. Washington Blvd., Los Angeles 16, Calif. 9-12-16. (h)
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind. 1-3-3a-18. (h)(p)(v)
 Maida Development Co., 214 Academy St., Hampton, Va. 1-5-9-21. (h)
 Mallory & Co., Inc., P.R., 34 S. Gray St., Indianapolis 6, Ind. 3-3a-12-18. (h)
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y. 7. (p)
 MICAMOLD ELECTRONICS MFG. CORP., 1087 Flushing Ave., Brooklyn 6, N. Y. 3-3a-4-5-6-9-11-12-13-16-17. ADV. PG. 301. (h)
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass. 20-25. (h)
 Mitronics, Inc., 1290 Central Ave., Hillside, N. J. 1-8-17-21. (h)
 MUCON CORP., 9 St. Francis St., Newark 5, N. J. 1. ADV. PG. 683. (h)
 Muirhead & Co., Ltd., Beckenham, Kent, England. 2. (h)
 Muter Company, The, 1255 S. Michigan Ave., Chicago 5, Ill. 1-5-21. (h)
 National Capacitor Co., 18 Webster St., Brookline, Mass. 4-5-6-9-10-12-13-14-16. (h)
 National Co., Inc., 61 Sherman St., Malden 48, Mass. 20-21-24-25. (h)
 New York Coil Co., Phoenixville 12, Pa. 10-12. (v)
 Nilsen Mfg. Co., Addison, Ill. 15. (h)
 Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif. 3a. (h)
 OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. 3a-18. ADV. PG. 282, 283. (h)
 ONODAGA POTTERY WORKS, Electronics Div. 1858 W. Lafayette St., Syracuse, N. Y. 1. ADV. PG. 252. (h)
 Pennsylvania Testing Lab., Inc., Doylestown, Pa. 2. (h)
 Planet Mfg. Corp., 225 Belleville Ave., Bloomfield, N. J. 3. (h)
 Plastic Capacitors, Inc., 2620 N. Clybourn Ave., Chicago 14, Ill. 4-9-12-13-14-19. (h)
 Potter Co., The, 1950 Sheridan Rd., North Chicago, Ill. 4-5-9-10-12-13-14. (h)
 PRECISION CAPACITORS, INC., 150 W. Cypress Ave., Burbank, Calif. 2-9-13. ADV. PG. 318. (h)
 PYRAMID ELECTRIC CO., 1445 Hudson Blvd., North Bergen, N. J. 3-3a-9-10-12. ADV. PG. 463. (h)
 Quality Components, Inc., St. Mary's, Pa. 6. (h)
 RADIO CONDENSER CO., Camden, N. J. 20-21-24-25. ADV. PG. 88. (h)
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill. 1-5-17. (h)
 Radio Materials Corp., 3325 N. California Ave., Chicago 18, Ill. 1. (h)
 RELIANCE MICA CO., 341 39th St., Brooklyn, N. Y. 11-17. ADV. PG. 695. (h)
 SANDERS ASSOCIATES, INC., Nashua, N. H. 13. ADV. PG. 534. (h)
 San Fernando Electric Mfg. Co., 1509 First St., San Fernando, Calif. 5-10-12-13. (h)
 Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill. 3-3a-4-5-9-11-12-13-14-17-18. (h)
 SARKES TARZIAN INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. 20. ADV. PG. 434. (h)
 Sickles, F. W., Div. General Instrument Corp., 165 Front St., Chicopee, Mass. 20. (h)
 Skottie Electronics, Inc., 204 Bridge St., Peckville, Pa. 1-5-9. (h)
 Solar Mfg. Corp., E. 46th & Seville Ave., Los Angeles 58, Calif. 1. (h)
 SOUTHERN ELECTRONICS CORP., 150 W. Cypress Ave., Burbank, Calif. 2-9-13. ADV. PG. 166. (h)
 Sprague Electric Co., 125 Marshall St., North Adams, Mass. 1-3-3a-4-5-9-10-11-12-13-14-16-17-18. (h)
 Sprague of Wisconsin, Inc., Sixth & Beech St., Graton, Wis. 1-21. (h)
 Stackpole Carbon Co., St. Marys, Pa. 6. (h)

Standard Condenser Co., 3749 N. Clark St., Chicago 13, Ill. 3-3a-12-13. (h)
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Inc. 2-7-9-10-12. (h)
 STUPAKOFF, DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. 21. ADV. PG. 108, 109. (h)
 Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y. 2-11-20. (h)
 Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y. 20-24. (h)
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y. 15. (h)
 Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W. 3, England. 1-2-3-3a-4-5-6-9-11-12-13-14-16-17-18-21. (h)
 Televiso Corp., 1415 Golf Rd., Des Plaines, Ill. 5. (h)
 Texas Capacitor Co., Div. of K-C-K Corp., 922 S. 75th St., Houston, Texas. 13. (h)
 TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. 4-5-6-9-10-12-13-14-16. ADV. PG. 645. (h)
 Underwood Electric & Mfg. Co., Inc., 4926 W. Grand Ave., Chicago 39, Ill. 5-9-11-15-17-20-22. (h)
 United Condenser Corp., 3400 Park Ave., New York 56, N. Y. 9-12. (h)
 United Electronic Mfg. Corp., 542 39th St., Union City, N. J. 3. (h)
 United Electronics Co., 42 Spring St., Newark 2, N. J. 19. (h)
 U. S. GASKET CO., Camden, N. J. 13-21. ADV. PG. 418, 635. (h)
 U. S. ELECTRONICS DEVELOPMENT CORP., 1323 Airway, Glendale 1, Calif. 2-9-10-12-13-18. ADV. PG. 675. (h)
 UNIVERSAL CONDENSER CO., 3435 N. Kimball Ave., Chicago 18, Ill. 3a-12-13. ADV. PG. 252. (h)
 VACAP CORP., 1905 Summit Ave., Union City, N. J. 23-25. ADV. PG. 664. (v)
 VITRAMON INC., Box 544, Bridgeport, Conn. 8. ADV. PG. 520. (h)
 Wells Co., Gary, 361 Rockaway Ave., Valley Stream, N. Y. 3-3a. (h)
 WELWYN INTERNATIONAL INC., 3355 Edgecliff Terrace, Cleveland 11, Ohio. 1-5. ADV. PG. 628. (h)
 WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. 13. ADV. PG. 557. (h)
 Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo. 25. (h)

CARTONS—for Shipping See PACKAGING MATERIALS

CARTRIDGES See CRYSTAL CARTRIDGES

CASES—Diode & Transistor

Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass. (h)
 Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass. (h)
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio. (h)
 ELECTRICAL INDUSTRIES DIV., PHILIPS ELECTRONICS, INC., 691 Central Ave., Murray Hill, N. J. ADV. PG. 315. (h)
 FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221. (h)
 HAMILTON ELECTRONICS CORP., Box 100, Bath, N. Y. ADV. PG. 507. (h)
 HUDSON TOOL & DIE CO., INC., 118 S. 14th St., Newark, N. J. ADV. PG. 185. (h)
 I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill. (h)
 JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 86, 87. (h)
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y. (h)
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn. (h)
 Thermo Materials, Inc., 4040 Campbell Ave., Menlo Park, Calif. (h)
 VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 476. (h)
 Warren Plastics Corp., Warren, Pa. (h)

CASES—Instrument & Meter

A & P Metal Products Mfg. Corp., 1111 Bloomingdale Rd., Hicksville, N. Y. (h)
 ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 644. (h)
 Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill. (h)
 ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 554. (h)
 AMERICAN ALUMINUM CO., Sheffield St., C, Mountaine, N. J. ADV. PG. 604. (h)
 Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio. (h)
 BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 501. (h)
 Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass. (h)
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn. (h)
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio. (h)
 Cambridge Pattern Works, Inc., 55 First St., Cambridge 41, Mass. (h)
 Columbia Metal Box Co., 260 E. 143rd St., New York 1, N. Y. (h)

CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 387.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Davies Molding Co., Harry, 1428 N. Wells St., Chicago 10, Ill.
Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
General Metal Products Co., 1010-14 Centre St., Easton, Pa.
Heldor Mfg. Corp., 238 Lewis St., Paterson, N. J.
HUDSON TOOL & DIE CO., 118 S. 14th St., Newark, N. J. ADV. PG. 185.
I. E. Manufacturing, 325 N. Hoynes Ave., Chicago 12, Ill.
Instrument Cases Div. of Ta Mfg. Corp., 510 W. Garfield St., Glendale 4, Calif.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.
KAUPP & SONS, C. B., 32 Newark Way, Maplewood, N. J. ADV. PG. 275.
Keller Products, Inc., 41 Union St., Manchester, N. H.
Koch & Sons, H., Corte Madera, Calif.
Majestic Aircraft Co., Moosup, Conn.
Mid-West Conveyor Co., Inc., Metal Products Div., 7th & Sunshine Rd., Fairfax District, Kansas City, Kan.
Mobil Electronics Mfg. Co., 1111 State Rd., 67 E., Anderson, Ind.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Muckle Mfg. Co., Owatonna 55, Minn.
Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.
Peterson & Neville, Inc., 365 Dorchester Ave., Boston, Mass.
PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx 59, N. Y. ADV. PG. 646.
Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
TA Mfg. Corp., 4613 Alger St., Los Angeles 39, Calif.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
Trimmm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.
Walter Co., Inc., S. 1400 Atlantic Ave., Brooklyn 16, N. Y.
Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
White Aircraft Corp., Palmer, Mass.
ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 634.

CASES—Portable

(for Radios, Phonographs, Amplifiers, etc.)

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 554.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 501.
Berlant Concertone-Audio Div. of American Electronics Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
I. E. Manufacturing, 325 N. Hoynes Ave., Chicago 12, Ill.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
Jodee Plastics Corp., 213 Shepherd Ave., Brooklyn 8, N. Y.
Mobil Electronics Mfg. Co., 1111 State Rd., 67 E., Anderson, Ind.
Molded Fibreglass Co., 4401 Benefit Ave., Ashtabula, Ohio.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Muckle Mfg. Co., Owatonna 55, Minn.
Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 634.

CASES—Transit

A&P Metal Products Mfg. Corp., 111 Bloomingdale Rd., Hicksville, N. Y.
ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 644.
Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.
AINSLIE CORP., 312 Quincy Ave., Quincy, Mass. ADV. PG. 589.
Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 501.
Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 387.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
Hinde & Dauch, Sandusky, Ohio.
I. E. Manufacturing, 325 N. Hoynes Ave., Chicago 12, Ill.
Instrument Cases Div. of Ta Mfg. Corp., 510 W. Garfield St., Glendale 4, Calif.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.
Koch & Sons, H., Corte Madera, Calif.
Kolman Show Case Corp., Fort Wayne 1, Ind.
Majestic Aircraft Co., Moosup, Conn.
REF Mfg. Corp., Jericho Turnpike, Mineola, N. Y.
Skydyne, Inc., River Rd., Port Jervis, N. Y.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
TA Mfg. Corp., 4613 Alger St., Los Angeles 39, Calif.
Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.
White Aircraft Corp., Palmer, Mass.
ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 634.

CASTINGS—Precision

Alloy Precision Casting Co., E. 45th & Hamilton Ave., Cleveland 14, Ohio.
Austenal Laboratories, Inc., Microcast Div., 224 E. 39th St., New York 16, N. Y.
Bean & Co., Morris, Yellow Springs, Ohio.
Engineered Precision Casting Co., Matawan Rd., Morganville, N. J.
Hitchiner Manufacturing Co., Inc., P. O. Box 232, Milford, N. H.
Misco Precision Casting Co., Gibbs & Larsen Sts., Whitehall, Mich.
Precision Metalsmiths, Inc., 1081 E. 200th St., Cleveland 17, Ohio.
Rode, Inc., 5 Green St., Woburn, Mass.
Sims Casting Co., 2174 E. Erie Blvd., Syracuse 3, N. Y.

CAVITIES—Microwave

See MICROWAVE ACCESSORIES

CELLS—Photoelectric

Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
Clairex Corp., 50 W. 26th St., New York 10, N. Y.
CONTINENTAL ELECTRIC CO., 6 N. Michigan Ave., Chicago 2, Ill. ADV. PG. 496.
Eastman Kodak Co., 343 State St., Rochester 4, N. Y.
Electrical Service Co., 1271 Mission St., San Francisco, Calif.
Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
Fireye Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Hupp Electronics Co., A Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
INTERNATIONAL RECTIFIER CORP., 1521 E. Grand Ave., El Segundo, Calif. ADV. PG. 218.
Northern Electronic & Vacuum Industries, St. Sauveur des Monts, P.Q., P.O. Box 105, Canada.
Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
Photo Crystals Inc., 15 S. First St., Geneva, Ill.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Standard Instrument Corp., 657 Broadway, New York 12, N. Y.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
Western Radiation Lab., 1107 W. 24th St., Los Angeles 7, Calif.

CELLS—Photovoltaic

Electron-Radar Products, P.O. Box 50, Route #30, North Aurora, Ill.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
Photo Crystals Inc., 15 S. First St., Geneva, Ill.

CELLS—Standard

ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
Eppley Lab., Inc., The, Newport, R. I.
GRAY INSTRUMENT CO., 200 E. Church Lane, Philadelphia 44, Pa. ADV. PG. 643.
Hastings-Raydist, Inc., Hampton 9, Va.
KIN TEL (KAY LAB), P.O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Muirhead & Co., Ltd., Beckenham Kent, England.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.

CEMENTS—Radio

Ambroid Co., Weymouth 88, Mass.
Barrett Varnish Co., 1532 S. 50th Court, Chicago 50, Ill.
Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
Maas & Waldstein Co., 2121 McCarter Highway, Newark 4, N. J.
Micro-Circuits Co., New Buffalo, Mich.
Moyen Co., C. P., 8157 Monticello Ave., Skokie, Ill.
PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.
Walco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 614.

CERAMICS

See INSULATION MATERIALS

CHAINS—Small Drive

BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 615.
Sierra Engineering Co., 123 E. Montecito Ave., Sierra Madre, Calif.

CHAMBERS—Altitude

CHAMBERS—Fungus Test
 See TEST EQUIPMENT—Environmental

CHAMBERS—Ionization

Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
Daystrom Nuclear Div. of Daystrom, Inc., P. O. Box 437, West Caldwell, N. J.
Devtron Engineering, 1 Winslow St., Redwood City, Calif.
Eberline Instrument Division, P. O. Box 279, Santa Fe, N. M.
Jordan Electronics, Inc., 3025 Mission Rd., Alhambra, Calif.
Landsverk Electrometer Co., 550 W. Garfield Ave., Glendale 4, Calif.
Nuclear-Chicago Corp., 223 W. Erie St., Chicago 10, Ill.
Nucleonic Company of America, 196 DeGraw St., Brooklyn 31, N. Y.
Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.
Servo-Recording Instruments, Inc., 1815 W. Van Buren, Phoenix, Ariz.
Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRANSISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. ADV. PG. 548.
VICTOREEN INSTRUMENT CO., COMPONENTS DIV., 5806 Hough Ave., Cleveland 3, Ohio. ADV. PG. 366.

CHAMBERS—Pressure

CHAMBERS—Rain and Sunshine
CHAMBERS—Sand and Dust
 See TEST EQUIPMENT—Environmental

CHAMBERS—Shielded Screen

Ace Engineering & Machine Co., Inc., 3644 N. Lawrence St., Philadelphia 40, Pa.
Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
Lindgren & Associates, Erik A., 4515 N. Ravenswood Ave., Chicago 40, Ill.
SHIELDING, INC., Dept. LB, Riverton, Inc. ADV. PG. 421.
Topatron, Inc., 942 E. Ojai Ave., Ojai, Calif.

CHAMBERS—Temperature & Humidity

Aireco, Inc., 2323 Second Ave., Carman, Schenectady 3, N. Y.
 American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
 American Research Corp., Route 6 & New Britain Ave., Farmington, Conn.
ASSOCIATED TESTING LABORATORIES, INC., 407 Clinton Rd., Caldwell, N. J. ADV. PG. 627.
 Atmosphere Control Co., Inc., 5315 Chester Ave., Philadelphia 43, Pa.
 Blue M Electric Co., 138th & Chatham St., Blue Island Ill.
 Bowser Technical Refrigeration Div. of Bowser, Inc., Eagle St., Terryville, Conn.
CONRAD, INC., 141 Jefferson St., Holland, Mich. ADV. PG. 395.
 Controlled Atmosphere Enclosures Corp., 230-11 141st Ave., Springfield Gardens 13, N. Y.
ENVIRONMENTAL EQUIPMENT CO., 371 Linden St., Brooklyn 27, N. Y. ADV. PG. 600.
 Hicks Corp., The, 1671 Hyde Park Ave., Hyde Park, Mass.
 Hudson Bay Co., Div. of Labline Inc., 3070 W. Grand Ave., Chicago 22, Ill.
 International Radiant Corp., 4 Manhasset Ave., Port Washington, N. Y.
 Lennard Co., Inc., P. M., P. O. Box 56, Village Station, New York 14, N. Y.
MURPHY & MILLER, INC., 1322 S. Michigan Ave., Chicago 5, Ill. ADV. PG. 677.
 New England Oven & Furnace Co., Post Rd., Orange, Conn.
STANDARD CABINET CO., 57 Washington Ave., Carlstadt, N. J. ADV. PG. 642.
TENNEY ENGINEERING INC., 1090 Springfield Rd., Union, N. J. ADV. PG. 422.
TROP-ARCTIC, INC., P. O. Box 334, Mishawaka, Ind. ADV. PG. 628.
 Webber Corp., P. O. Box 217, Indianapolis 6, Ind.

CHAMBERS—Test

Aireco, Inc., 2323 Second Ave., Carman, Schenectady 3, N. Y.
 American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
 American Research Corp., Route 6 & New Britain Ave., Farmington, Conn.
ASSOCIATED TESTING LABORATORIES, INC., 407 Clinton Rd., Caldwell, N. J. ADV. PG. 627.
 Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.
 Bowser Technical Refrigeration Div. of Bowser, Inc., Eagle St., Terryville, Conn.
CONRAD, INC., 141 Jefferson St., Holland, Mich. ADV. PG. 395.
 Controlled Atmosphere Enclosures Corp., 230-11 141st Ave., Springfield Gardens 13, N. Y.
DEVELOPMENT ENGINEERING CO., 9 Cross St., Norwalk, Conn. ADV. PG. 500.
ENVIRONMENTAL EQUIPMENT CO., 371 Linden St., Brooklyn 27, N. Y. ADV. PG. 600.
 Hicks Corp., The, 1671 Hyde Park Ave., Hyde Park, Mass.
 Hudson Bay Co., Div. of Labline Inc., 3070 W. Grand Ave., Chicago 22, Ill.
 Hunter-Bristol Corp., Bristol, Pa.
 International Radiant Corp., 4 Manhasset Ave., Port Washington, N. Y.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Lennard Co., Inc., P. M., P. O. Box 56, Village Station, New York 14, N. Y.
MURPHY & MILLER, INC., 1322 S. Michigan Ave., Chicago 5, Ill. ADV. PG. 677.
PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.
STANDARD CABINET CO., 57 Washington Ave., Carlstadt, N. J. ADV. PG. 642.
TENNEY ENGINEERING INC., 1090 Springfield Rd., Union, N. J. ADV. PG. 422.
TROP-ARCTIC, INC., P. O. Box 334, Mishawaka, Ind. ADV. PG. 628.
 Webber Corp., P. O. Box 217, Indianapolis 6, Ind.

CHANGERS—Automatic Record

Birmingham Sound Reproducers Ltd., Monarch Works, Old Hill, Powke Lane, Staffs, England.
 Garrard Sales Corp., 80 Shore Rd., Port Washington, N. Y.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Lesa, Via Bergamo 21, Milan, Italy.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Seeburg, J. P., A Div. of Fort Pitt Industries, Inc., 1500 N. Dayton St., Chicago 22, Ill.

CHARGERS—Battery

See BATTERY CHARGERS

CHASSIS SLIDES

See SLIDES—Chassis

CHASSIS—Metal

A A Metal Products, Inc., 154 Elliot St., Box 716, Brattleboro, Vt.
 A&P Metal Products Mfg. Corp., 111 Bloomingdale Rd., Hicksville, N. Y.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 554.
 Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
AMERICAN ALUMINUM CO., Sheffield St.,-C, Mountain-side, N. J. ADV. PG. 604.
 Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 501.
 Bingham Mfg. Co., J. F., 69 Bay State Rd., Lawrence, Mass.
 Boyle Metalcraft Corp., 150 Sullivan St., Brooklyn 31, N. Y.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 605.
 Corry-Jamestown Mfg. Co., Corry, Pa.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Donnelly Mfg. Co., Div. of The Indian Co., 580 Winter St., Waltham 54, Mass.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
 Fisher & Crome, 107 N. Camac St., Philadelphia 7, Pa.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 538.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.
HAMMER ELECTRONICS CO., INC., Box 531, Princeton, N. J. ADV. PG. 671.
 Helder Mfg. Corp., 238 Lewis St., Paterson, N. J.
 Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Metal-Craft, Inc., Burgess Place, Mountain View, N. J.
 Metalcraft, Inc., 65-33 Austin St., Rego Park 74, N. Y.
 Mid-West Conveyor Co., Inc., Metal Products Div., 7th & Sunshine Rd., Fairfax District, Kansas City, Kan.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Mobil Electronics Mfg. Co., 1111 State Rd. 67 E., Anderson, Ind.
 Olympic Metal Products Co., Inc., Third Ave., Alpha, N. J.
 Par-Metal Products Corp., 32-62 49th St., Long Island City 3, N. Y.
 Peterson & Neville, Inc., 365 Dorchester Ave., Boston, Mass.
PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx 59, N. Y. ADV. PG. 646.
 REF Mfg. Corp., Jericho Turnpike, Mineola, N. Y.
 Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Riester & Thesmacher Co., 1510 W. 25th St., Cleveland 13, Ohio.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
 Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
 Transformer Metal Products Corp., 36 York St., Brooklyn 3, N. Y.
 Trimm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
 Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.
 Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.
 White Aircraft Corp., Palmer, Mass.
 Wyco Metal Products, 6918 Beck Ave., North Hollywood, Calif.

CHECKERS

See Also ANALYZERS

CHECKERS—Cable

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
 Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., Box 10, Morristown, N. J.
 California Technical Industries, 1421 Old County Rd., Belmont, Calif.
 Dit-Mico, Inc., Electronics Div., 911 Broadway, Kansas City 5, Mo.

Hunter-Bristol Corp., Bristol, Pa.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 650.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
RADAR ENGINEERS, 403 E. 45th St., Seattle 5, Wash. ADV. PG. 462.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Teletron Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

CHECKERS—Cathode Ray Tube

B & K Mfg. Co., 3726 Southport Ave., Chicago 13, Ill.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
HEATH CO. A SUB. OF DAYSTROM, INC., Bonton Harbor, 14, Mich. ADV. PG. 575.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Research Electronics Laboratories, Roslyn, Pa.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Tricraft Products Corp., 1124 W. Newport Ave., Chicago 13, Ill.

CHECKERS—Crystal Rectifier

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 B & K Mfg. Co., 3726 N. Southport Ave., Chicago 13, Ill.
 Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
TECHNITROL ENGINEERING CO., 1952 E. Alleghen Ave., Philadelphia 34, Pa. ADV. PG. 542.
 Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.

CHECKERS—Klystron Tube

Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 Pennsylvania Testing Lab., Inc., Doylestown, Pa.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.

CHEMICALS—Electronic

BAKER & ADAMSON PRODUCTS, GENERAL CHEMICAL DIV. OF ALLIED CHEMICAL & DYE CORP., 4 Rector St., New York, N. Y. ADV. PG. 363.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
 Barco Chemical Products Co., 701-703 S. La Salle, Chicago 5, Ill.
 Barium & Chemicals, Inc., Willoughby, Ohio.
 Caig Laboratories, 46 Stanwood Rd., New Hyde Park, N. Y.
 Ed-Berl Products, Inc., 87 Merrick Rd., Baldwin, N. Y.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
GENERAL CEMENT MFG. CO., DIV. OF TETRAPOX INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Jonas Co., F., 55 W. 42nd St., New York 36, N. Y.
 Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
 Micro-Circuits Co., New Buffalo, Mich.
 Silicones Div., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Southern Instruments Ltd., Computer Div., Frimley Rd., Camberley, Surrey.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
 Workman TV, Inc., 309 Queen Anne Road, Teaneck, N. J.
 Wye Industries, 6 General Devine Way, Boston 27, Mass.

CHEMICALS—Electroplating

Allied Research & Engineering Div., Allied Record Mfg. Co., 6916 Santa Monica Blvd., Hollywood 38, Calif.
BAKER & ADAMSON PRODUCTS, GENERAL CHEMICAL DIV. OF ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. ADV. PG. 363.
 Barco Chemical Products Co., 701-703 S. La Salle, Chicago 5, Ill.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 Enthone, Inc., 442 Elm St., New Haven 2, Conn.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
TECHNIC, INC., P. O. Box 965, Providence 1, R. I. ADV. PG. 477.
 Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

CHEMICALS—Luminescent

American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
BAKER & ADAMSON PRODUCTS, GENERAL CHEMICAL DIV. OF ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. ADV. PG. 363.
CANADIAN RADIUM & URANIUM CORP., 630 Fifth Ave., New York 20, N. Y. ADV. PG. 665.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 Mallinckrodt Chemical Works, Second and Mallinckrodt Sts., St. Louis 7, Mo.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.

CHEMICALS—Tube

BAKER & ADAMSON PRODUCTS, GENERAL CHEMICAL DIV. OF ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. ADV. PG. 363.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Jonas Co., F., 55 W. 42nd St., New York 36, N. Y.
 Mallinckrodt Chemical Works, Second and Mallinckrodt Sts., St. Louis 7, Mo.
 Philadelphia Quartz Co., 1146K Public Ledger Bldg., Philadelphia 6, Pa.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

CHOKES—Audio

See COILS—*a-f* Choke

CHOKES—Filter

CHOKES—Power
 See COILS—Filter Choke

CHOKES—*r-f* (heavy wire low voltage)

See COILS—*r-f* choke, heavy wire low voltage

CHOKES—*r-f* & *if*

See COILS—*r-f* Choke

CHOPPERS—DC-AC

AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300.
 Barnes Development Co., 213 W. Baltimore Pike, Lansdowne, Pa.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Bruel & Kjaer, Naerum, Denmark.
 Collins Electronics Mfg. Corp., Stevensville, Md.
GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
JAMES VIBRAPOWR CO., 4050 N. Rockwell St., Chicago 18, Ill. ADV. PG. 542.
 Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.
 Rumble, Inc., 15026 Oxnard St., Van Nuys, Calif.
STEVENS-ARNOLD INC., 22 Elkins St., South Boston 27, Mass. ADV. PG. 274.
VIBRATION RESEARCH LABS, INC., 97 Lake Ave., Tuckahoe, N. Y. ADV. PG. 621.

CHRONAXIMETERS

Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 Teca Corp., 80 Main St., White Plains, N. Y.

CHRONOGRAPHS—Inertialless

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

CHRONOSCOPES

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.

CIRCUITS—Computer, Packaged

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Applegate & Co., C. J., 1840 24th St., Boulder, Colo.
 Bernco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.
 Berkshire Laboratories, 580 Bank Village, Greenville, N. H.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 584.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
 Electronic Products Corp., 322 State St., Santa Barbara, Calif.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
 Graphik-Circuits Div. of Cinch Mfg. Corp., 200 S. Turnbull Canyon Rd., La Puente, Calif.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 Jeffers Electronics Div. of Speer Carbon Co., DuBois, Pa.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
M F ELECTRONICS, 122 E. 25th St., New York 10, N. Y. ADV. PG. 512.
 Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.
 Magnetics Research Co. Cor. Grove St. & E. Post Rd., White Plains, N. Y.
MINITRON, INC., 1105 Second St., Encinitas Calif. ADV. PG. 622.
 Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Ransom Research, Box 382, San Pedro, Calif.
 Reflectone Corp., Post Rd. & Myano Lane, Stamford, Conn.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Sibley Co., The, Haddam, Conn.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Telex, Inc., Telex Park, St. Paul 1, Minn.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Tripl-T Co. Electronics, Box 5352, Pasadena, Calif.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
WALKIRT CO., 141 W. Hazel St., Inglewood 3 Calif. ADV. PG. 470.

CIRCUITS—Plug-In

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
 Allied Industries, Inc., 25th & Woodland Ave., Louisville 10, Ky.
 Ansley Mfg. Co., Arthur, New Hope, Pa.
 Applegate & Co., C. J., 1840 24th St., Boulder, Colo.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 Berkshire Laboratories, 580 Bank Village, Greenville, N. H.
 Bernco Engineering Corp. 2320 S. Tibbs Ave., Indianapolis, Ind.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 584.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
 Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
 Electronic Products Corp., 322 State St., Santa Barbara, Calif.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
 Graphik-Circuits Div. of Cinch Mfg. Corp., 200 S. Turnbull Canyon Rd., La Puente, Calif.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
M F ELECTRONICS, 122 E. 25th St., New York 10, N. Y. ADV. PG. 512.
 Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.
MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
ONONDAGO POTTERY WORKS, Electronics Div., 1858 W. Lafayette St., Syracuse, N. Y. ADV. PG. 252.
OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 650.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
 Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass.
POMONA ELECTRONICS CO., INC., 1126 W. Fifth Ave., Pomona, Calif. ADV. PG. 314.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
 Ram Meter, Inc., 1100 Hilton Rd., Ferndale, Detroit 20, Mich.
 Ransom Research, Box 382, San Pedro, Calif.
RESISTANCE PRODUCTS CO., 914 S. 13th St., Harrisburg, Pa. ADV. PG. 169.
 Sibley Co., The, Haddam, Conn.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Telex, Inc., Telex Park, St. Paul 1, Minn.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Tripl-T Co. Electronics, Box 5352, Pasadena, Calif.
 Waldorf Instrument Co. Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.

CIRCUITS—Potted

Aerovox Corp., Pacific Coast Div., 2724 So. Peck Rd., Monrovia, Calif.
 Allied Industries, Inc., 25th & Woodland Ave., Louisville 10, Ky.
AMP INC., CHEMICALS & DIELECTRICS DIV., 155 Park St., Elizabethtown, Pa. ADV. PG. 255.
 Applegate & Co., C. J., 1840 24th St., Boulder, Colo.
 Beck's, Inc., 298-300 E. Fifth St., Saint Paul 1, Minn.
 Bernco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
 Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H.
 Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Graphik-Circuits Div. of Cinch Mfg. Corp., 200 S. Turnbull Canyon Rd., La Puente, Calif.
 Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
 Hansen Electronics, 7117 Santa Monica Blvd., Los Angeles 46, Calif.
 Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.
 Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.
MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 650.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
 Ram Meter, Inc., 1100 Hilton Rd., Ferndale, Detroit 20, Mich.
RESISTANCE PRODUCTS CO., 914 S. 13th St., Harrisburg, Pa. ADV. PG. 169.
 Sibley Co., The, Haddam, Conn.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telex, Inc., Telex Park, St. Paul 1, Minn.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.

CIRCUITS—Printed

1. Etched
2. Plated

3. Stamped and Embossed

ACF Electronics, 800 N. Pitt St., Alexandria, Va. 1-2-3.
Admiral Corp., 3800 Cortland St., Chicago 47, Ill. 1.
Aerovox Corp., 740 Bellevue Ave., New Bedford, Mass. 1.
Aerovox Corp., Pacific Coast Div., 2724 So. Peck Rd.,
Monrovia, Calif. 2.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A",
Bayonne, N. J. 2. ADV. PG. 615.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J.
1-2. ADV. PG. 532.
ALLIED ALLEGRI, INC., 141 River Rd., Nutley, N. J.
1-2-3. ADV. PG. 650.
Amelco, Inc., 2040 Colorado Ave., Santa Monica,
Calif. 1-2.
American Printed Circuits Co., Inc., Forrest St.,
Metuchen, N. J. 1-2.
Ansley Mfg. Co., Arthur, New Hope, Pa. 1-2.
Automatic Processing Corp., 1335 N. Wells St., Chicago,
Ill. 1-2-3.
Beck's Inc., 298-300 E. Fifth St., Saint Paul 1,
Minn. 1-3.
Bill Jack Scientific Instrument Co., P. O. Box C-3,
Solano Beach, Calif. 1-2-3.
Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn. 1-2.
BUREAU OF ENGRAVING, INC., INDUSTRIAL DIV., 500
S. Fourth St., Minneapolis 15, Minn. 1-2. ADV. PG.
633.
CG Electronics Div. of Gulton Industries, Inc., 305
Dallas St., N. E., Albuquerque, N. M. 1-2.
California Bent Glass Corp., Torrance, Calif. 1-2-3.
CENTRAL-DAV, GLOBE-UNION INC., 914 E. Keefe
Ave., Milwaukee 1, Wis. 1. ADV. PG. 419.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24,
Ill. 1-2. ADV. PG. 131-133.
CIRCON COMPONENT CO., Santa Barbara Municipal
Airport, Goleta, Calif. 1-2. ADV. PG. 638.
Cleveland Metal Specialties Co., 1783 E. 21st St.,
Cleveland 14, Ohio. 1-2.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson
Park 57, Mass. 1. ADV. PG. 584.
Consolidated Electrodynamics Corp., 300 N. Sierra
Madre Villa, Pasadena 15, Calif. 1.
COOK CO., FRANK R., 36 S. Santa Fe Drive, Denver 23,
Colo. 1. ADV. PG. 480.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield,
N. J. 1-2-3. ADV. PG. 111.
CORNING GLASS WORKS, Corning, N. Y. 1. ADV. PG.
390.
Croname, Inc., 1747 Grace St., Chicago 13, Ill. 1-2.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. 1-2.
ADV. PG. 438, 439.
DOTY ACOUSTICAL ELECTRONIC LABS., INC., 431
Broome St., New York 13, N. Y. 1. ADV. PG. 676.
Dubrow Development Co., 235B Penn St., Burlington,
N. J. 3.
Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
1-2.
DUNN ENGINEERING ASSOCIATES INC., 186 Massa-
chusetts Ave., Cambridge 39, Mass. ADV. PG. 695.
Dwyer Engineering Co., Inc., Box 483, Nashua, N. H. 1-2.
Eaton Electronics Corp., Eaton Ave., Moodus, Conn. 1-2.
Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia
44, Pa. 1.
Electralab, Inc., Sub. of Farrington Mfg. Co., Industrial
Center, Needham Heights 94, Mass. 1-2-3.
ELECTRICAL INSULATION CO., INC., 1245 Marconi
Bldg., Copiague, N. Y. 1-2-3. ADV. PG. 699.
Electrochemical Industries, Inc., 35 Armory St., Worces-
ter, Mass. 1-2-3.
Electronic Products Corp., 322 State St., Santa Bar-
bara, Calif. 1-3.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa.
1. ADV. PG. 286.
Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37,
N. Y. 1.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y. 3.
ENGINEERED ELECTRONICS CO., 506 E. First St.,
Santa Ana, Calif. 1. ADV. PG. 623.
ERIE RESISTOR CORP., Erie 6, Pa. 3. ADV. PG. 170,
171.
Fairfield Engineering Corp., 934 Hope St., Springfield,
Conn. 1.
FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd.,
Clifton, N. J. ADV. PG. 355-357.
General American Transportation Corp., Kanigen Div.,
135 S. La Salle St., Chicago, Ill. 2.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston
15, Mass. 1-3. ADV. PG. 563.
**GENERAL ELECTRIC CO., SPECIALTY ELECTRONIC
COMPONENTS DEPT.**, W. Genesee St., Auburn, N. Y.
2. ADV. PG. 18.
General Research & Supply Co., 572 S. Division Ave.,
Grand Rapids 3, Mich.
Globe Electrical Mfg. Co., 1729 W. 134th St., Gardena,
Calif. 1-2.
Graphik-Circuits Div. of Clinch Mfg. Corp., 200 S. Turn-
bull Canyon Rd., La Puente, Calif. 1-2-3.
GULTON INDUSTRIES, INC., Metuchen, N. J. 1. ADV.
PG. 425.
Hansen Electronics, 7117 Santa Monica Blvd., Los An-
geles 46, Calif. 1-2-3.
Hoover Electronics Co., 3640 Woodland Ave., Balti-
more 15, Md. 1-2.
Hopp Press, Inc., 460 W. 34th St., New York, N. Y. 3.
International Crystal Mfg. Co., 18 N. Lee St., Okla-
homa City, Okla. 1.

**INTERNATIONAL TELEPHONE & TELEGRAPH CORP.,
INDUSTRIAL PRODUCTS DIV.**, 88 Kingsland Rd.,
Clifton, N. J. ADV. PG. 355-357.
Kell Engineering Products Co., 6833 Manchester, St.
Louis, Mo. 1-2.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St.,
Boston 14, Mass. 1-2-3. ADV. PG. 358.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lam-
bard, Oak Park, Ill. 1-3. ADV. PG. 588.
Laminated Sheet Products Corp., 449 Neponset St.,
P. O. Box 390, Norwood, Mass. 1-2-3.
LAMTEX INDUSTRIES, INC., 51 State St., Westbury,
N. Y. 1-2. ADV. PG. 596.
Litton Industries, Beverly Hills, Calif. 1.
Litton Industries, Components Div., 5873 Rodeo Rd.,
Los Angeles 16, Calif. 1-2.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8,
Ill. 1-3.
Metaplast Co. Inc., 34-51 56th St., Woodside, N. Y. 2.
METHODE MFG. CORP., 2021 W. Churchill St., Chicago
47, Ill. 1-2-3. ADV. PG. 204.
MINITRON, INC., 1105 Second St., Encinitas, Calif. 1-2.
ADV. PG. 622.
Molded Insulation Co., 335 E. Price St., Philadelphia 44,
Pa. 1-2.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd.,
Clifton, N. J. 1-2. ADV. PG. 140, 141.
Northern Plastics Corp., Second & Market Sts., La
Crosse, Wis. 1-2.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los
Angeles 64, Calif. 1-2. ADV. PG. 268.
Panelyte Div., St. Regis Paper Corp., 261 Madison Ave.,
New York 16, N. Y. 1-2-3.
Park Nameplate Co., Inc., 34-10 Linden Place, Flushing
54, N. Y. 1.
Peterson Radio Co., 2800 West Broadway, Council Bluffs,
Iowa.
PHOTOCIRCUITS CORP., Glen Cove, N. Y. 1-2. ADV.
PG. 396.
Plastics & Electronics Co., Inc., P.O. Box 38, Station
J, Buffalo 8, N. Y. 2.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver
Spring, Md. 1-2.
Printed Circuit Div. of LaPointe Electronics, Inc., Rock-
ville, Conn. 1-2.
Printed Electronics Corp., 7 North Ave., Natick, Mass.
1-2-3.
RS Electronics Corp., 435 Portage Ave., P.O. Box 368,
Station A, Palo Alto, Calif. 1-2.
Ransom Research, Box 382, San Pedro, Calif. 1.
Rogers Corporation, Goodyear, Conn. 1-2-3.
Rowe Engravers, 492 E. 39th St., Paterson 4, N. J. 1.
SANDERS ASSOCIATES, INC., Nashua, N. H. 1. ADV.
PG. 534.
Sheffco Mfg. Corp., Grand & Ruby Ave., Palisades Park,
N. J. 3.
Sibley Co., The, Haddam, Conn. 1-2.
Sierra Electric Corp., 15100 S. Figueroa St., P.O. Box
85, Gardena, Calif.
Silo Ring Co. of America, 3612-3622 W. Jefferson
Blvd., Los Angeles 21, Calif. 1-2.
Sprague of Wisconsin, Inc., Sixth & Beech St., Grafton,
Wis.
Stromberg-Carlson Co., Div. of General Dynamics Corp.,
100 Carlson Rd., Rochester 3, N. Y. 1.
Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles
22, Calif. 1-2.
Techniques, Inc., 52 Jackson Ave., Hackensack, N. J. 1.
Technograph Printed Electronics, Inc., 185 Valley St.,
Tarrytown, N. Y. 1-2.
TECHRON CORP., 81 Washington St., Boston 8, Mass.
1. ADV. PG. 656.
Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton,
London W.3, England. 1-2-3.
Thermo Materials, Inc., 4040 Campbell Ave., Menlo Park,
Calif.
Tingstol Co., 1461 W. Grand Ave., Chicago 22, Ill. 1-3.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y. 1.
Tri-Dex Co., P.O. Box 1207, Lindsay, Calif. 1.
U. S. Engineering Co., Div. of Litton Industries, 5873
Rodeo Rd., Los Angeles 18, Calif. 1-2.
U. S. GASKET CO., Camden, N. J. 1-2-3. ADV. PG.
418, 635.
Vandercook & Sons, Inc., 3601 W. Touhy Ave., Chicago
45, Ill.
Zenith Optical Laboratory, 1940 Great Neck Rd.,
Copiague, N. Y. 1-2.
Zephyr Products Co., 129 E. 124th St., New York 55,
N. Y.

CLAMPS for TUBES

**ALDEN ELECTRONIC & IMPULSE RECORDING EQUIP-
MENT CO.**, Box 125, Westboro, Mass. ADV. PG. 566.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64,
Mass. ADV. PG. 567.
ATLAS E-E CORP., 47 Prospect St., Woburn, Mass.
ADV. PG. 562.
AUGAT BROS., INC., 33 Perry Ave., Attleboro, Mass.
ADV. PG. 517.
Barwood Mfg. Co., Inc., L. J., 22 Williams St.,
Everett 49, Mass.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York
13, N. Y. ADV. PG. 501.
BIRTCORP., 4371 Valley Blvd., Los Angeles 32,
Calif. ADV. PG. 636.
British Electronics Sales Co., Inc., Oakland Garden Sta.,
Flushing 64, N. Y.
Buck Engineering Co., Inc., 37-41 Marcy St., Freehold,
N. J.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave.,
Cambridge 38, Mass. ADV. PG. 150.

Exacto Industries, Inc., 8730-36 Santa Monica Blvd.,
Los Angeles 46, Calif.
I.E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
Ippolito & Co., Inc., James, 401 Concord Ave., Bronx 54,
N. Y.
METAL TEXTILE CORP., 647 E. First Ave., Roselle,
N. J. ADV. PG. 450.
Millen Mfg. Co., James, 150 Exchange St., Malden,
Mass.
Newcomb Spring Corp., The, 177 E. Hawthorne Ave.,
Valley Stream, N. Y.
Peerless Electronics Inc., 5338 Alhambra Ave., L.
Angeles 32, Calif.
Remler Company, 2101 Bryant St., San Francisco 10,
Calif.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn
10, N. Y.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore,
N. Y.
Stone City Machine & Tool Co., Inc., P. O. Box 351,
1206 Seventh St., Bedford, Ind.
TIMES FACSIMILE CORP., 540 W. 58th St., New York
19, N. Y. ADV. PG. 468.
Timmerman Products, Inc., P. O. Box 6688, Dept. No. 16,
Cleveland 1, Ohio.

CLEANERS—Ultrasonic

Acoustica Associates, Inc., Shore Rd., Glenwood Landing
2, N. Y.
Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry,
N. J.
Barco Chemical Products Co., 701-703 S. LaSalle St.,
Chicago 5, Ill.
Blackstone Corp., 1111 Allen St., Jamestown, N. Y.
BRANSON ULTRASONIC CORP., 1 Brown House Rd.,
Stamford, Conn. ADV. PG. 605.
Chesapeake Instrument Corp., ShadySide, Md.
Electro Craft Industries, Inc., 68 Jackson St., Stamford,
Conn.
Enthone, Inc., 442 Elm St., New Haven 2, Conn.
General Kinetics Inc., 555 23rd St., S., Arlington 2,
Va.
General Nuclear Corp., 550 Fifth Ave., New York 28,
N. Y.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG.
425.
Hudson Bay Co., Div. of Labline, Inc., 3070 W. Grand
Ave., Chicago 22, Ill.
McKenna Laboratories, Santa Monica 6, Calif.
Mack Electronics A Div. of Mack Trucks, Inc., Plainfield,
N. J.
Mass Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
Minneapolis-Honeywell Regulator Co., Ordnance Div., 600
2nd St., N., Hopkins, Minn.
Phillips Mfg. Co., 3406 W. Touhy Ave., Chicago 45, Ill.
Piezo Products Co., Whitney St., Sherborn, Mass.
Pioneer-Central Division, Bendix Aviation Corp., Daven-
port, Iowa.
SPELLMAN TELEVISION CO., INC., 3029 Webster Ave.,
New York 67, N. Y. ADV. PG. 230, 231.
Telephonics Corp., Park Ave., Huntington, N. Y.
Woodwelding, Inc., 3000 W. Olive, Burbank, Calif.

CLIPS—Fuse

ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64,
Mass. ADV. PG. 567.
Amatom Electronic Hardware Co., 122 Sunset Rd.,
Mamaroneck, N. Y.
ATLAS E-E CORP., 47 Prospect St., Woburn, Mass.
ADV. PG. 562.
Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett
49, Mass.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York
13, N. Y. ADV. PG. 501.
Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave.,
Hawthorne, N. J.
British Electronics Sales Co., Inc., Oakland Garden Sta.,
Flushing 64, N. Y.
BURNEDY CORPORATION, Norwalk, Conn. ADV. PG. 441.
BUSSMANN MFG. CO., St. Louis 7, Mo. ADV. PG. 60.
Dante Electric Mfg. Co., Bantam, Conn.
Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia
44, Pa.
**GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT
TEXTRON INC.**, 400 S. Wyman St., Rockford, Ill.
ADV. PG. 543.
INSULINE CORP. OF AMERICA, 186 Granite St., Man-
chester, N. H. ADV. PG. 582.
JFD MANUFACTURING CO., INC., 6101 16th Ave.,
Brooklyn 4, N. Y. ADV. PG. 53.
Kolton Electric Mfg. Co., 123 New Jersey Railroad Ave.,
Newark 5, N. J.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave.,
Mount Vernon, N. Y. ADV. PG. 685.
LITTELFUSE, INC., Des Plaines, Ill. ADV. PG. 459.
NATIONAL TELTRONICS CORP., 35 St. Casimirs Ave.,
Yonkers, N. Y. ADV. PG. 642.
Rohden Manufacturing Co., Inc., 4739 Montrose Ave.,
Chicago 41, Ill.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn
10, N. Y.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Stone City Machine & Tool Co., Inc., P. O. Box 351,
1206 Seventh St., Bedford, Ind.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway,
New York 19, N. Y. ADV. PG. 733-739.
Trumbull Components Dept., General Electric Co., 4
Woodford Ave., Plainville, Conn.
Walco Electronics Mfg. Co., 100 Green St., Rockford,
Ill.
ZIERICK MFG. CORP., Beechwood & Rockdale Aves., Ne-
Rochelle, N. Y. ADV. PG. 605.

CLIPS—Grid

Aerolite Electronics Corp., 506 26th St., Union City, N. J.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
 Exacto Industries, Inc., 8730-36 Santa Monica Blvd., Los Angeles 46, Calif.
 Hobson Bros., 4940 W. Lawrence Ave., Chicago 30, Ill.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mt. Vernon, N. Y. ADV. PG. 685.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
 Stone City Machine & Tool Co., Inc., P.O. Box 351, 1206 Seventh St., Bedford, Ind.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
 Warren Plastics Corp., Warren, Pa.
ZIERICK MFG. CORP., Beechwood & Rockdale Aves., New Rochelle, N. Y. ADV. PG. 605.

CLIPS—Test

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
ASSOCIATED ENGINEERING CORP., 65 Kent St., Brookline 46, Mass. ADV. PG. 678, 679.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Eastern Specialty Co., Philadelphia 40, Pa.
 Exacto Industries, Inc., 8730-36 Santa Monica Blvd., Los Angeles 46, Calif.
 Frankel Connector Co., 27 Vestry St., New York, N. Y.
GRAYHILL, INC., 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 493.
INDUSTRIAL DEVICES, INC., 982 River Rd., Edgewater, N. J. ADV. PG. 631.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
 Mueller Electric Co., 1582H E. 31st St., Cleveland 14, Ohio.
POMONA ELECTRONICS CO., INC., 1126 W. Fifth Ave., Pomona, Calif. ADV. PG. 314.
RAPID SPECIALTIES CO., 327 W. Huron St., Chicago 10, Ill. ADV. PG. 664.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

CLOTHS—Speaker Grille

Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

CLOTHS—Woven Wire

Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.

CLUTCHES—Magnetic

Autotronics, Inc., Route 1, Box 812, Florissant, Mo.
 Belock Instrument Corp., 111-01 14th Ave., College Point 56, N. Y.
COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
 Dial Products Co., 9 Avenue E., Bayonne, N. J.
 Dynamic Instrument Corp., 59 New York Ave., Westbury, N. Y.
 Electronic Mechanisms, Inc., P. O. Box 1156, Greenwich, Conn.
 Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.
 Helipoint Corp., Newport Beach, Calif.
 Hobbs Mfg. Co., 26 Salisbury St., Worcester, Mass.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
RADIO CONDENSER CO., Camden, N. J. ADV. PG. 88.
 Raymond Engineering Laboratory, Inc., Smith St., Middletown, Conn.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Sterling Precision Corp., Instrument Div., 34-17 Lawrence St., Flushing 54, N. Y.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

COATINGS—Conductive

See Also GRAPHITE—Colloidal

Acheson Colloids Co., 1950 Washington Ave., Port Huron, Mich.
 Anderson Associates, H. V., 239 Park Ave., Berkeley Heights, N. J.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 California Bent Glass Corp., Torrance, Calif.
 Chemical Products Corp., King Philip Rd., East Providence, R. I.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
 Drakenfield & Co., Inc., B. F., Box 519, Washington, Pa.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
FILMOHM CORP., 48 W. 25th St., New York 10, N. Y. ADV. PG. 670.
 General Plastics Corp., P. O. Box 1236, Paterson, N. J.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 328.
 Hansen Electronics Co., 7117 Santa Monica Blvd., Los Angeles 46, Calif.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
 Metz Refining Co., 369 Mulberry St., Newark 2, N. J.
 Micro-Circuits Co., New Buffalo, Mich.
 Philadelphia Quartz Co., 1146K Public Ledger Bldg., Philadelphia 6, Pa.
 Photo Chemical Products, Inc., 999A Stewart Ave., Garden City, N. Y.
 Pittsburgh Plate Glass Co., 1 Gateway Center, Pittsburgh 22, Pa.
 Silicones Div., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Torrance Glass & Color Works, Torrance, Calif.
U. S. RUBBER CO., 1230 Avenue of the Americas, New York 20, N. Y. ADV. PG. 119.
 Vacuum Equipment Div. of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.
 Vorac Co., The, 147 Meadow Rd., Rutherford, N. J.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

COATINGS—CONDUCTIVE—Tube Interior

Acheson Colloids Co., 1950 Washington Ave., Port Huron, Mich.
 California Bent Glass Corp., Torrance, Calif.
 Philadelphia Quartz Co., 1146K Public Ledger Bldg., Philadelphia 6, Pa.
 Torrance Glass & Color Works, Torrance, Calif.

COATINGS—Protective

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
 Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
 American Solder & Flux Co., 19th & Willard Sts., Philadelphia 40, Pa.
 Angier Adhesives Div. of Interchemical Corp., 120 Potter St., Cambridge 42, Mass.
 Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Armstrong Cork Co., Lancaster, Pa.
 Auburn Button Works, Inc., Auburn, N. Y.
 Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Barrett Varnish Co., 1532 S. 50th Court, Cicero 50, Ill.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 Borden Co., Chemical Div., 350 Madison Ave., New York 17, N. Y.
CANADIAN RADIUM & URANIUM CORP., 630 Fifth Ave., New York 20, N. Y. ADV. PG. 665.
 Celanese Corp. of America, Plastics Div., 290 Ferry St., Newark 5, N. J.
 Chemical Products Corp., King Philip Rd., East Providence, R. I.
 Communication Products Co., Inc., Marlboro, N. J.
CONNECTICUT HARD RUBBER CO., 407 East St., New Haven 9, Conn. ADV. PG. 646.
 Crown Industrial Products Co., 713 Amsterdam Ave., Woodstock, Ill.
 Cudner & O'Connor Co., 4035 W. Kinzie Ave., Chicago 24, Ill.
 Dow Corning Corp., Midland, Mich.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
ELECTRONIC PLASTICS CORP., 675 Barbey St., Brooklyn 7, N. Y. ADV. PG. 663.
 Ellis & Watts Products, Inc., P. O. Box 33, Cincinnati 36, Ohio.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Enthone, Inc., 442 Elm St., New Haven 2, Conn.
 Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.
 Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
 Furane Plastics, Inc., 4516 Brazil St., Los Angeles 39, Calif.
 General American Transportation Corp., Kanigen Div., 135 S. La Salle St., Chicago, Ill.

General Electric Co., Silicone Products Dept., Waterford, N. Y.
 General Plastics Corp., P. O. Box 1236, Paterson, N. J.
 George Co., P. D., 5200 N. Second St., St. Louis, Mo.
 Goodrich Industrial Products Co., B. F., 500 S. Main St., Akron 18, Ohio.
 Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Jonas Co., F., 55 W. 42nd St., New York 36, N. Y.
 Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
 Koppers Co., Inc., Koppers Bldg., Pittsburgh 19 Pa.
 London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Markal Co., 3052 W. Carroll Ave., Chicago 12, Ill.
 Metal & Thermit Corp., Rahway, N. J.
 Midland Industrial Finishes Corp., Dept. I-20, Waukegan, Ill.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 Norton Co., 1 New Bond St., Worcester 6, Mass.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 Paisley Products, Inc., 630 W. 51st St., New York 19, N. Y.
 Photo Chemical Products, Inc., 999A Stewart Ave., Garden City, N. Y.
 Pittsburgh Plate Glass Co., 1 Gateway Center, Pittsburgh 22, Pa.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
 Protective Coatings Corp., 596 River Rd., Clifton, N. J.
 Reilly Tar & Chemical Corp., 1615 Merchants Bank Bldg., 11 S. Meridan St., Indianapolis 4, Ind.
 Silicones Div., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
 Sparta Mfg. Co., Div. of U. S. Ceramic Tile Co., Dover, Ohio.
SPHERE CO., INC., THE, 25 Amity St., Little Falls, N. J. ADV. PG. 652.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.
 Stevenson Bro. & Co., 110 Race St., Philadelphia 6, Pa.
 Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
 Tempil Corp., 132 W. 22nd St., New York 11, N. Y.
 Terrell Corp., 19 Lane St., Waltham 54, Mass.
 Thermo Materials, Inc., 4040 Campbell Ave., Menlo Park, Calif.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 U. S. Stoneware Co., The, Akron 9, Ohio.
 United Technical Laboratories, Box 425-V, Morristown, N. J.
 Vorac Co., The, 147 Meadow Rd., Rutherford, N. J.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
WESTLINE PRODUCTS DIV. OF WESTERN LITHOGRAPH CO., 600 E. Second St., Los Angeles 54, Calif. ADV. PG. 470.
 Wright Metalcoaters, Inc., 255 West St., South Hackensack, N. J.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 614.

COATINGS—Salt Spray Resistance
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
 American Solder & Flux Co., 19th & Willard Sts., Philadelphia 40, Pa.
 Auburn Button Works, Inc., Auburn, N. Y.
 Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
 Barrett Varnish Co., 1532 S. 50th Court, Cicero 50, Ill.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 Borden Co., Chemical Div., 350 Madison Ave., New York 17, N. Y.
 Chemical Products Corp., King Philip Rd., East Providence, R. I.
CONNECTICUT HARD RUBBER CO., 407 East St., New Haven 9, Conn. ADV. PG. 646.
 Crown Industrial Products Co., 713 Amsterdam St., Woodstock, Ill.
ELECTRONIC PLASTICS CORP., 675 Barbey St., Brooklyn 7, N. Y. ADV. PG. 663.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Enthone, Inc., 442 Elm St., New Haven 2, Conn.
 Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.
 Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
 General American Transportation Corp., Kanigen Div., 135 S. La Salle St., Chicago, Ill.
 General Plastics Corp., P. O. Box 1236, Paterson, N. J.
 Goodrich Industrial Products Co., B. F., 500 S. Main St., Akron 18, Ohio.
 Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
 Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
 London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Metal & Thermit Corp., Rahway, N. J.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
 Silicones Div., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island, N. Y.
Stevenson Bro. & Co., 110 Race St., Philadelphia 6, Pa.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
Vorac Co., The, 147 Meadow Rd., Rutherford, N. J.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y.
ADV. PG. 614.

CODE & TAB MARKERS

Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
Brady Co., W. H., 727 W. Glendale Ave., Milwaukee 12, Wis.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic, Conn. ADV. PG. 199.
Fox Co., C. J., The, 236 Aborn St., P. O. Box 1186, Providence 1, R. I.
Labelon Tape Co., 450 Atlantic Ave., Rochester 9, N. Y.
Printed Cellophane Tape Co., 521 N. La Brea Ave., Los Angeles 36, Calif.
Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
WESTLINE PRODUCTS DIV. OF WESTERN LITHOGRAPH CO., 600 E. Second St., Los Angeles 54, Calif. ADV. PG. 470.

COIL BOBBINS

See **BOBBINS**

COIL FORMS

See **FORMS—Coil**

COIL WINDING MACHINES

See **MACHINES—Coil Winding**

COILS—a-f Choke

Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AEROVOX CORP., PACIFIC COAST DIV., 2724 So. Peck Rd., Monrovia, Calif. ADV. PG. 688.
Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 50.
Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
CHICAGO STANDARD TRANSFORMER CORP., 3521 Addison St., Chicago, Ill. ADV. PG. 466, 467.
Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
Delevan Electronics Corp., Roycroft Campus, East Aurora, N. Y.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill.
ELECTRO ENGINEERING WORKS, 401 Preda St., San Leandro, Calif. ADV. PG. 512.
Electro-Tech Pacific, Santa Barbara Airport, P. O. Box 455, Goleta, Calif.
Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 674.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind.
Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
General Transformer Corp., 18240 Harwood Ave., Homewood, Ill.
Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
Grand Transformers, Inc., Hey St., Grand Haven, Mich.
Hadley Co., Inc., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif.

INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455.
Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y.
Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
Magnadyne Co., 84 S. Water St., Port Chester, N. Y.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa.
Marine View Electronics Inc., 28 Main St., White Plains, N. Y.
Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
Mid-West Coil & Transformer Co., 1642 N. Halstead St., Chicago 14, Ill.
Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
Mystic Transformers Inc., 63 Swanton St., Winchester, Mass.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
NATIONAL COIL CO., P. O. Box 1237, Sheridan Wyo. ADV. PG. 647.
New York Coil Co., Phoenixville 12, Pa.
New York Transformer Co., Inc., Third Ave., Alpha, N. J.
Oaktron Electric Co., Tinley Park, Ill.
Omega Electronics Co., 355 Atlantic Ave., Brooklyn 17, N. Y.
Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn.
Sage-Craft, Inc., Norwich, N. Y.
SIGNAL TRANSFORMER CO., 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667.
SIOUX RADIO PRODUCTS, 100 Douglas Ave., Yankton, S. D. ADV. PG. 538.
Skysweeper Inc., McHenry, Ill.
Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Standard Winding Corp., 44-62 Johnes St., Newburgh, N. Y.
Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
Telex, Inc., Telex Park, St. Paul 1, Minn.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
Thordarson-Weissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
Torocoil Co., 2615 Bristol Rd., Columbus 21, Ohio.
TOROTEL, INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539.
Transformer Engineers, 161 E. California, Pasadena 1, Calif.
Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa.
Warsaw Coil Co., Warsaw, Ind.
Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Westbury 91, Conn.

COILS—Antenna

See **TRANSFORMERS—r-f and i-f**

COILS—Choke

Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AEROVOX CORP., PACIFIC COAST DIV., 2724 So. Peck Rd., Monrovia, Calif. ADV. PG. 688.
Aladdin Electronics A Div. of Aladdin Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
AMP INC., CHEMICALS & DIELECTRIC DIV., 155 Park St., Elizabethtown, Pa. ADV. PG. 255.
Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind.
Atlas Coil, Inc., 63 Main St., Ansonia, Conn.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
AUTOMATIC COIL CO., 415 Bedford Ave., Brooklyn, N. Y. ADV. PG. 675.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Barwood Electronics Inc., 921 E. Broadway, Glendale 5, Calif.
Basler Electric Co., 605 Fifth St., Highland, Ill.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Bradford Components, Inc., Bradford, Pa.

BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
Clifton Mfg. Co., Inc., 20 N. Springfield Rd., Clifton Heights, Pa.
Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.
Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
Colcraft, Inc., Cary, Ill.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
Condor Radio Mfg. Co., 4068 E. Paseo Grande, Tucson 12, Ariz.
COTO-COIL CO., INC., 65 Pavilion Ave., Providence 5, R. I. ADV. PG. 668.
Crest Transformer Corp., 1834-36 W. North Ave., Chicago 22, Ill.
Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
DANO ELECTRIC CO., Main St., Winsted, Conn. ADV. PG. 584.
DeCoursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
Delevan Electronics Corp., Roycroft Campus, East Aurora, N. Y.
DeWitt Development Co., 308 W. 127th St., Blue Island, Ill.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 29, Ill.
ELECTRO ENGINEERING WORKS, 401 Preda St., San Leandro, Calif. ADV. PG. 512.
Electro-Tech Pacific, Santa Barbara Airport, P. O. Box 455, Goleta, Calif.
Electro-Winders Co., Inc., 854 W. Front St., Covina, Calif.
ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 682.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 674.
Essex Electronics, Berkeley Heights, N. J.
Fasco Industries, Inc., Rochester 2, N. Y.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J.
General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
Grand Transformers, Inc., Hey St., Grand Haven, Mich.
Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill.
Hadley Co., Inc., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif.
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 698.
Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.
Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y.
Johnson Co., E. F., Waseca, Minn.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Magnadyne Co., 84 S. Water St., Port Chester, N. Y.
Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa.
Marine View Electronics Inc., 28 Main St., White Plains, N. Y.
Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
Modern Industries, Inc., 2601 Colorado Ave., Santa Monica, Calif.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Muter Co., The, 1255 S. Michigan Ave., Chicago 5, Ill.
Mystic Transformers, Inc., 63 Swanton St., Winchester, Mass.

ELECTRONIC and ALLIED PRODUCTS

COILS

- NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
- National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
- NATIONAL COIL CO.,** P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
- National Co., Inc., 61 Sherman St., Malden 48, Mass.
- NEW ENGLAND TRANSFORMER CO.,** 47 McGrath Highway, Somerville, Mass. ADV. PG. 676.
- New York Coil Co., Phoenixville 12, Pa.
- New York Transformer Co., Inc., Third Ave., Alpha, N. J.
- Nothelfer Winding Labs., Inc., P. O. Box 455, Trenton, N. J.
- Oaktron Electric Co., Tinley Park, Ill.
- OHMITE MFG. CO.,** 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
- Omega Electronics Co., 355 Atlantic Ave., Brooklyn 17, N. Y.
- ORTHO FILTER CORP.,** 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
- Peerless Electrical Div. of Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif.
- Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
- PULSE ENGINEERING, INC.,** 2657 Spring St., Redwood City, Calif. ADV. PG. 607.
- Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
- Ratigan Electronics, Inc., 3614 Maple Ave., Los Angeles 11, Calif.
- Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
- REDMAN ELECTRONICS CORP.,** P. O. Box 72, Thompsonville, Conn. ADV. PG. 522.
- Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn.
- Rolan Electric Co., 8233 S. Princeton Ave., Chicago 20, Ill.
- Sage-Craft, Inc., Norwich, N. Y.
- Sag Harbor Industries, Inc., Bay St., Sag Harbor, N. Y.
- Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
- SIGNAL TRANSFORMER CO.,** 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667.
- Skysweeper Inc., McHenry, Ill.
- SOUTHWESTERN INDUSTRIAL ELECTRONICS CO.,** 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.
- Standard Telephones & Cables Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
- Standard Winding Corp., 44-62 Johnes St., Newburgh, N. Y.
- Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
- Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.
- STERLING TRANSFORMER CORP.,** 297 N. Seventh St., Brooklyn 11, N. Y. ADV. PG. 644.
- Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
- SYLVANIA ELECTRIC PRODUCTS INC.,** 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
- Tele-Coil Co., Inc., 275 Saunders St., Camden 5, N. J.
- Telex, Inc., Telex Park, St. Paul 1, Minn.
- Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
- TEXAS INSTRUMENTS INCORPORATED,** 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
- Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
- Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y.
- TORWIC ELECTRONICS, INC.,** 1090 Morris Ave., Union, N. J. ADV. PG. 405.
- Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
- Tronic Coil Winding Co., Inc., 58 Wesley St., Waterbury, Conn.
- U. S. ELECTRONICS CORP.,** 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
- United Technical Laboratories, Box 425-V, Morristown, N. J.
- UNITED TRANSFORMER CORP.,** 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
- Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
- VARO MFG. CO., INC.,** 2201 Walnut St., Garland, Texas. ADV. PG. 564.
- Vokar Corp., 7300 Huron River Drive, Dexter, Mich.
- Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa.
- Warsaw Coil Co., Warsaw, Ind.
- WATERS MANUFACTURING, INC.,** Boston Post Rd., Wayland, Mass. ADV. PG. 258, 259.
- Western Coil Products Co., 969 Commercial St., Palo Alto, Calif.
- Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Westbury 91, Conn.
- American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
- Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind.
- Atlas Coil, Inc., 63 Main St., Ansonia, Conn.
- ATLAS ENGINEERING CO.,** 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
- AUTOMATIC COIL CO.,** 415 Bedford Ave., Brooklyn, N. Y. ADV. PG. 675.
- Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
- Barwood Electronics Inc., 921 E. Broadway, Glendale 5, Calif.
- Basler Electric Co., 605 Fifth St., Highland, Ill.
- Bradford Components, Inc., Bradford, Pa.
- CALEDONIA ELECTRONICS & TRANSFORMER CO.,** Caledonia, N. Y. ADV. PG. 50.
- Carad Corp., 2850 Bay Rd., Redwood City, Calif.
- Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
- CELCO,** Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
- Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
- Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill.
- CHICAGO MAGNETIC CONTROL CO.,** 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
- CHICAGO STANDARD TRANSFORMER CORP.,** 3521 Addison St., Chicago, Ill. ADV. PG. 466, 467.
- Clifton Mfg. Co., Inc., 20 N. Springfield Rd., Clifton Heights, Pa.
- Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.
- Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
- Coilcraft, Inc., Cary, Ill.
- Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
- COMMUNICATION ACCESSORIES CO.,** Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
- Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
- Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
- Crest Transformer Corp., 1834-36 W. North Ave., Chicago 22, Ill.
- Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
- DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
- DeCoursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
- Delevan Electronics Corp., Roycroft Campus, East Aurora, N. Y.
- DIETZ DESIGN & MFG. CO.,** Grandview 6, Mo. ADV. PG. 595.
- Double "E" Products Co., 216 Standard St., El Segundo, Calif.
- EASTERN PRECISION RESISTOR CORP.,** 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
- Electran Mfg. Co., 1901 N. Cloybourn, Chicago, Ill.
- Electrical Windings, Inc., 2035 N. Kolmar St., Chicago 39, Ill.
- ELECTRO ENGINEERING WORKS,** 401 Preda St., San Leandro, Calif. ADV. PG. 512.
- ELECTRONIC COILS, INC.,** P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 682.
- Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.
- Electro-Tech Pacific, Santa Barbara Airport, P. O. Box 455, Goleta, Calif.
- Ensign Coil Co., 2516 S. Pulaski Rd., Chicago, Ill.
- EPCO PRODUCTS, INC.,** 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 674.
- Essex Electronics, Berkeley Heights, N. J.
- FERRANTI ELECTRIC INC.,** 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
- FILTRON CO., INC.,** 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
- First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
- Fisher Engineering, Inc., 2060 U. S. 24 East P. O. Box 327, Huntington, Ind.
- Forest Electric Co., 7216 Circle Road, Forest Park, Ill.
- Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio.
- FREED TRANSFORMER CO., INC.,** 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
- Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
- Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
- Grand Transformers, Inc., Hey St., Grand Haven, Mich.
- Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
- Hadley Co., Inc., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif.
- HIGHLAND ENGINEERING CO.,** 91 Magnolia St., Westbury, N. Y. ADV. PG. 698.
- Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J.
- HOUULIHAN CO., T. J.,** 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.
- INDUSTRIAL TRANSFORMER CORP.,** Gouldsboro, Pa. ADV. PG. 454, 455.
- Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y.
- K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn.
- Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
- LABORATORY FOR ELECTRONICS, INC.,** 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
- Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
- Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
- Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
- Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave., at Hobson Blvd., Easton, Pa.
- Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
- Marine View Electronics Inc., 28 Main St., White Plains, N. Y.
- Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
- MICROTRAN CO., INC.,** 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
- Mid-West Coil & Transformer Co., 1642 N. Halsted St., Chicago 14, Ill.
- Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
- Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
- Modern Industries, Inc., 2601 Colorado Ave., Santa Monica, Calif.
- Mystic Transformers Inc., 63 Swanton St., Winchester, Mass.
- NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
- NATIONAL COIL CO.,** P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
- NEW ENGLAND TRANSFORMER CO.,** 47 McGrath Highway, Somerville, Mass. ADV. PG. 676.
- New York Coil Co., Phoenixville 12, Pa.
- New York Transformer Co., Inc., Third Ave., Alpha, N. J.
- Nothelfer Winding Labs., Inc., P. O. Box 455, Trenton, N. J.
- Oaktron Electric Co., Tinley Park, Ill.
- Omega Electronics Co., 355 Atlantic Ave., Brooklyn 17, N. Y.
- ORTHO FILTER CORP.,** 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
- Peerless Electrical Div. of Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif.
- Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
- Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
- Ratigan Electronics, Inc., 3614 Maple Ave., Los Angeles 11, Calif.
- Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
- REDMAN ELECTRONICS CORP.,** P. O. Box 72, Thompsonville, Conn. ADV. PG. 522.
- Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn.
- Sage-Craft, Inc., Norwich, N. Y.
- SIGNAL TRANSFORMER CO.,** 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667.
- Skysweeper Inc., McHenry, Ill.
- Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
- Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
- Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
- Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
- Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.
- SYLVANIA ELECTRIC PRODUCTS INC.,** 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
- TECHNICAL APPARATUS BUILDERS,** 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
- Television Laboratories, Inc., Mill St., Wauconda, Ill.
- Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
- TEXAS INSTRUMENTS INCORPORATED,** 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
- Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
- Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
- TOBE DEUTSCHMANN CORP.,** 921 Providence Highway, Norwood, Mass. ADV. PG. 645.
- Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y.
- TOROTEL, INC.,** 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539.
- TORWIC ELECTRONICS, INC.,** 1090 Morris Ave., Union, N. J. ADV. PG. 405.
- Transformer Engineers, 161 E. California, Pasadena 1, Calif.
- Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
- Tronic Coil Winding Co., Inc., 58 Wesley St., Waterbury, Conn.
- U. S. ELECTRONICS CORP.,** 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
- UNITED TRANSFORMER CORP.,** 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
- VARO MFG. CO., INC.,** 2201 Walnut St., Garland, Texas. ADV. PG. 564.
- Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa.
- Warsaw Coil Co., Warsaw, Ind.
- Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Westbury 91, Conn.

COILS-Deflection

See YOKES-Deflection

COILS-Filter Choke

- ACF Electronics, 800 N. Pitt St., Alexandria, Va.
- A.P.W. Co., 72 W. Main St., Rockaway, N. J.
- Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
- AEROVOX CORP., PACIFIC COAST DIV.,** 2724 So. Peck Rd., Monrovia, Calif. ADV. PG. 688.
- Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
- Aladdin Electronics A Div. of Aladdin Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
- All-Tronics, Inc., 45 Bond St., Westbury, N. Y.

COILS-Flyback

See TRANSFORMERS-Flyback

COILS-Foil Wound

A.P.W. Co., 72 W. Main St., Rockaway, N. J.

Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
AUTOMATIC COIL CO., 415 Bedford Ave., Brooklyn, N. Y. ADV. PG. 675.
 Automation Instruments, Inc., Aluminum Foil Transformer Div., 401 E. Green St., Pasadena, Calif.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
 Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
COTO-COIL CO., INC., 65 Pavilion Ave., Providence 5, R. I. ADV. PG. 668.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Electro Winders Co., Inc., 854 W. Front St., Covina, Calif.
 First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
GOOD-ALL ELECTRIC MFG. CO., 112 W. First St., Ogallala, Neb. ADV. PG. 124.
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
 Hadley Co., Inc., Robert, M., 5112 S. Hoover St., Los Angeles 37, Calif.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 New York Transformer Co., Inc., Third Ave., Alpha, N. J.
 Oaktron Electric Co., Tinley Park, Ill.
 Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky.
 Sage-Craft, Inc., Norwich, N. Y.
SIGNAL TRANSFORMER CO., 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667.
 Sturupp, Inc., 50 Silver St., Middletown, Conn.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 Warsaw Coil Co., Warsaw, Ind.

COILS—Magnet

A.P.W. Co., 72 W. Main St., Rockaway, N. J.
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
ALIED CONTROL CO., INC., 2 East End Ave., New York 21, N. Y. ADV. PG. 126, 127.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
 Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind.
 Atlas Coil, Inc., 63 Main St., Ansonia, Conn.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
 Atlas Resistor Co., 1128 Madison St., Chester, Pa.
 Audivox, Inc., 123 Worcester St., Boston 18, Mass.
AUTOMATIC COIL CO., 415 Bedford Ave., Brooklyn, N. Y. ADV. PG. 675.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
 Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
COTO-COIL CO., INC., 65 Pavilion Ave., Providence 5, R. I. ADV. PG. 668.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
DANO ELECTRIC CO., Main St., Winsted, Conn. ADV. PG. 584.
 DeLuxe Coils, Inc., Wabash, Ind.
 DeWitt Development Co., 308 W. 127th St., Blue Island, Ill.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
 Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
 Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill.
ELECTRO ENGINEERING WORKS, 401 Preda St., San Leandro, Calif. ADV. PG. 512.
ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 682.
ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 571.
 Ensign Coil Co., 2516 S. Pulaski Rd., Chicago, Ill.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn, 17, N. Y. ADV. PG. 674.

First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
 Five Star Co., 10 W. Main St., Plantsville, Conn.
 Forest Electric Co., 7216 Circle Road, Forest Park, Ill.
 Fugle-Miller Labs, Inc., 301 Central Ave., Clark, N. J.
 Glaser-Steers Corp., 2 Main St., Belleville 9, N. J.
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
 Grand Transformers, Inc., Hey St., Grand Haven, Mich.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
 Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill.
 Hadley Co., Inc., Robert, M., 5112 S. Hoover St., Los Angeles 37, Calif.
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 698.
HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau Ave., Brooklyn 22, N. Y. ADV. PG. 653.
 Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.
KURMAN ELECTRIC CO., INC., 191-193 Newel St., Brooklyn 22, N. Y. ADV. PG. 669.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa.
 Marine View Electronics Inc., 28 Main St., White Plains, N. Y.
 Model Electric Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
 Modern Industries, Inc., 2601 Colorado Ave., Santa Monica, Calif.
 New York Coil Co., Phoenixville 12, Pa.
 Oaktron Electric Co., Tinley Park, Ill.
 Omega Electronics Co., 355 Atlantic Ave., Brooklyn 17, N. Y.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
 Osborne Electric Co., 712 S. E. Hawthorne, Portland 14, Ore.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 681.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
 Randall Inc., Douglas, 6 Pawcatuck Ave., Westerly, R. I.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 522.
 Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn.
 Rollan Electric Co., 8233 S. Princeton Ave., Chicago 201, Ill.
 Sage-Craft, Inc., Norwich, N. Y.
 Sag Harbor Industries, Inc., Bay St., Sag Harbor, N. Y.
SIGNAL TRANSFORMER CO., 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667.
 Skysweeper Inc., McHenry, Ill.
 Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
 Standard Winding Corp., 44-62 Johnes St., Newburgh, N. Y.
 Sturupp, Inc., 50 Silver St., Middletown, Conn.
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Trent Tube Co., East Troy, N. Y.
 Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
 U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa.
 Warsaw Coil Co., Warsaw, Ind.
 Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.
 Winatic Corp., The, P. O. Box 240, Endicott, N. Y.
 Z & W Mfg. Corp., 30240 Lakeland Blvd., Wickliffe, Ohio

COILS—Metalized Glass

ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
 Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
 Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
 Hansen Electronics, 7117 Santa Monica Blvd., Los Angeles 46, Calif.
 McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.
 Mitronics, Inc., 1290 Central Ave., Hillside, N. J.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
SYNCOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 589.
 Torrance Glass & Color Works, Torrance, Calif.

COILS—Motor & Generator Field

Atlas Coil, Inc., 63 Main St., Ansonia, Conn.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
 Bendix Aviation Corp., Montrose Div., South Montrose, Pa.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 DeLuxe Coils, Inc., Wabash, Ind.
ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 571.
 Ensign Coil Co., 2516 S. Pulaski Rd., Chicago, Ill.
 First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.
 National Electric Coil Co., Columbus 16, Ohio.
POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 681.
 Sag Harbor Industries, Inc., Bay St., Sag Harbor, N. Y.
 Sturupp, Inc., 50 Silver St., Middletown, Conn.
 Tronic Coil Winding Co., Inc., 58 Wesley St., Waterbury, Conn.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
 Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

COILS—Printed Circuit

See TRANSFORMERS—Printed Circuit

COILS—Relay

A. P. W. Co., 72 W. Main St., Rockaway, N. J.
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
ALLIED CONTROL CO., INC., 2 East End Ave., New York 21, N. Y. ADV. PG. 126, 127.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
 Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
 Atlas Resistor Co., 1128 Madison St., Chester, Pa.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
 Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
 Chicago Telephone of California, Inc., 105 Pasadena Ave., South Pasadena, Calif.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
 Coilcraft, Inc., Cary, Ill.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
COTO-COIL CO., INC., 65 Pavilion Ave., Providence 5, R. I. ADV. PG. 668.
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
DANO ELECTRIC CO., Main St., Winsted, Conn. ADV. PG. 584.
 Delevan Electronics Corp., Roycroft Campus, East Aurora, N. Y.
 DeLuxe Coils, Inc., Wabash, Ind.
 DeWitt Development Co., 308 W. 127th St., Blue Island, Ill.
 Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill.
ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 682.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 571.
 Ensign Coil Co., 2516 S. Pulaski Rd., Chicago, Ill.
 First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
 Five Star Co., 10 W. Main St., Plantsville, Conn.
 Globe Electrical Mfg. Co., 1729 W. 134th St., Gardena, Calif.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 698.
HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau Ave., Brooklyn 22, N. Y. ADV. PG. 653.
 Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.
KURMAN ELECTRIC CO., INC., 191-193 Newel St., Brooklyn 22, N. Y. ADV. PG. 669.
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Magnadyne Co., 84 S. Water St., Port Chester, N. Y.
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa.

Marine View Electronics Inc., 28 Main St., White Plains, N. Y.
 May Engineering Co., 6055 Lankershim Blvd., North Hollywood, Calif.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 New York Coil Co., Phoenixville 12, Pa.
 North Electric Co., 553 S. Market St., Galion, Ohio.
 Oaktron Electric Co., Tinley Park, Ill.
 Omega Electronics Co., 355 Atlantic Ave., Brooklyn 17, N. Y.
 Osborne Electric Co., 712 S. E. Hawthorne, Portland 14, Ore.
 Penn Tran Corp., Bellefonte, Pa.
POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 681.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Randall, Inc., Douglas, 6 Pawcatuck Ave., Westerly, R. I.
 Ratigan Electronics, Inc., 3614 Maple Ave., Los Angeles 11, Calif.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
 Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn.
 Rollan Electric Co., 8233 S. Princeton Ave., Chicago 20, Ill.
 Sage-Craft, Inc., Norwich, N. Y.
 Sag Harbor Industries, Inc., Bay St., Sag Harbor, N. Y.
SIoux RADIO PRODUCTS, 100 Douglas Ave., Yankton, S. D. ADV. PG. 538.
 Standard Winding Corp., 44-62 Johnes St., Newburgh, N. Y.
 Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Sturupp, Inc., 50 Silver St., Middletown, Conn.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Tronic Coil Winding Co., Inc., 58 Wesley St., Waterbury, Conn.
 Tur-Bo Jet Products, Inc., 424 S. San Gabriel Blvd., San Gabriel, Calif.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 Warsaw Coil Co., Warsaw, Ind.
 Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.
 Winatic Corp., The, P. O. Box 240, Endicott, N. Y.

COILS—r-f Choke

Ace Coil & Electronics Co., 912 Lincoln Highway, Metuchen, N. J.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AEROVOX CORP., PACIFIC COAST DIV., 2724 So. Peck Rd., Monrovia, Calif. ADV. PG. 688.
 Aladdin Electronics A Div. of Aladdin Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
AUTOMATIC COIL CO., 415 Bedford Ave., Brooklyn, N. Y. ADV. PG. 675.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bradford Components, Inc., Bradford, Pa.
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
 Caddell-Burns Mfg. Co., 40 E. Second St., Mineola, N. Y.
 Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
 Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
 Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
 Coilcraft, Inc., Cary, Ill.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.
 Condor Radio Mfg. Co., 4068 E. Paseo Grande, Tucson 12, Ariz.
COTO-COIL CO., INC., 65 Pavilion Ave., Providence 5, R. I. ADV. PG. 668.
 Delevan Electronics Corp., Roycroft Campus, East Aurora, N. Y.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
 Electro-Winders Co., Inc., 854 W. Front St., Covina, Calif.
ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 682.
 Ensign Coil Co., 2516 S. Pulaski Rd., Chicago, Ill.
 Essex Electronics, Berkeley Heights, N. J.

FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
 First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
 Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 Gray & Kuhn, Inc., 20 Railroad Ave., Roslyn Heights, N. Y.
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
 Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.
INDUSTRIAL TRANSFORMER CORP., Goldsboro, Pa. ADV. PG. 454, 455.
INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y.
 Jeffers Electronics Div. of Speer Carbon Co., DuBois, Pa.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
 Lewis Spring & Mfg. Corp., 2646 W. North Ave., Chicago 47, Ill.
 Liberty Industries, 107-37 71st Ave., Forest Hills, N. Y.
 MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Marine View Electronics Inc., 28 Main St., White Plains, N. Y.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
 Moran Electronic Components, Inc., 7660 Woodbury Drive, Silver Spring, Md.
 Muter Co., The, 1255 S. Michigan Ave., Chicago 5, Ill.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 New York Coil Co., Phoenixville 12, Pa.
NORTH HILLS ELECTRIC CO., INC., 402 Sagamore Ave., Mineola, N. Y. ADV. PG. 428.
 Oaktron Electric Co., Tinley Park, Ill.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.
 Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
 Ratigan Electronic Inc., 3614 Maple Ave., Los Angeles 11, Calif.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 522.
 Rollan Electric Co., 8233 S. Princeton Ave., Chicago 20, Ill.
 Sage-Craft, Inc., Norwich, N. Y.
 Sag Harbor Industries, Inc., Bay St., Sag Harbor, N. Y.
 Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
SIoux RADIO PRODUCTS, 100 Douglas Ave., Yankton, S. D. ADV. PG. 538.
 Standard Winding Corp., 44-62 Johnes St., Newburgh, N. Y.
 Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.
 Summit Coil Co., 4 Claremont Rd., Bernardsville, N. J.
 Suprex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
 United Technical Laboratories, Box 425-V, Morristown, N. J.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 Warsaw Coil Co., Warsaw, Ind.
WATERS MANUFACTURING, INC., Boston Post Rd., Wayland, Mass. ADV. PG. 258, 259.
 Western Coil Products Co., 969 Commercial St., Palo Alto, Calif.
 Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.

COILS—r-f Choke (Heavy Wire Low Voltage)

A. P. W. Co., 72 W. Main St., Rockaway, N. J.

Ace Coil & Electronics Co., 912 Lincoln Highway, Metuchen, N. J.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
 Atlas Coil, Inc., 63 Main St., Ansonia, Conn.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
AUTOMATIC COIL CO., 415 Bedford Ave., Brooklyn, N. Y. ADV. PG. 675.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bradford Components, Inc., Bradford, Pa.
 Caddell-Burns Mfg. Co., 40 E. Second St., Mineola, N. Y.
 Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
 Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
 Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Delevan Electronics Corp., Roycroft Campus, East Aurora, N. Y.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
 Double "E" Products Co., 216 Standard St., El Segundo, Calif.
 Electro-Winders Co., Inc., 854 W. Front St., Covina, Calif.
ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 682.
 Fast & Co., John E., 3538 N. Kedzie Ave., Chicago 18, Ill.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
 First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
 Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.
INDUSTRIAL TRANSFORMER CORP., Goldsboro, Pa. ADV. PG. 454, 455.
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y.
 Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
 Mag-Electric Products Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Marine View Electronics Inc., 28 Main St., White Plains, N. Y.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
NORTH HILLS ELECTRIC CO., INC., 402 Sagamore Ave., Mineola, N. Y. ADV. PG. 428.
 Oaktron Electric Co., Tinley Park, Ill.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
 Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
 Sage-Craft, Inc., Norwich, N. Y.
 Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
SIoux RADIO PRODUCTS, 100 Douglas Ave., Yankton, S. D. ADV. PG. 538.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
 Warsaw Coil Co., Warsaw, Ind.
 Western Coil Products Co., 969 Commercial St., Palo Alto, Calif.

COILS—r-f Receiving

See TRANSFORMERS—r-f and I-f

COILS—Solenoid

See COILS—Magnet SOLENOIDS

COILS—Speaker (Voice Coil)

A. P. W. Co., 72 W. Main St., Rockaway, N. J.

Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Arco Transformer & Electric Co., 1602 S. Hanna St.,
 Fort Wayne, Ind.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury,
 Mass. ADV. PG. 600.
 Best Manufacturing Co., Inc., 1200 Grove St., Irvington
 11, N. J.
 Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
 Consolidated Radio Products Co., 350 W. Erie St., Chi-
 cago 10, Ill.
 DX Radio Products Co., Inc., 2300 Armitage Ave.,
 Chicago 47, Ill.
DANO ELECTRIC CO., Main St., Winsted, Conn. ADV.
 PG. 584.
 Delevan Electronics Corp., Roycroft Campus, East Aurora,
 N. Y.
 Electronic Transformer Co., 70 Washington St., Brooklyn
 1, N. Y.
 First Electronics Corp., 117 Blue Hill Ave., Boston 19,
 Mass.
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave.,
 Chicago 25, Ill. ADV. PG. 590.
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island
 City 1, N. Y.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 Molded Insulation Co., 335 E. Price St., Philadelphia
 44, Pa.
 Stromberg-Carlson Co., Div. of General Dynamics Corp.,
 100 Carlson Rd., Rochester 3, N. Y.
 Thordarson Melissner Mfg. Co., 7th & Belmont Ave.,
 Mt. Carmel, Ill.
 Tronic Coil Winding Co., Inc., 58 Wesley St., Water-
 bury, Conn.
 Warren Transformer Co., Inc., 103 Warren St., Tunk-
 hannock, Pa.

COILS—Television Focusing

A. P. W. Co., 72 W. Main St., Rockaway, N. J.
 Arco Transformer & Electric Co., 1602 S. Hanna St.,
 Fort Wayne, Ind.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury,
 Mass. ADV. PG. 600.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
CHICAGO STANDARD TRANSFORMER CORP., 3521
 Addison St., Chicago, Ill. ADV. PG. 466, 467.
 Cinema-Television Ltd., Worsley Bridge Rd., London,
 S.E. 26, England.
 Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland
 3, Ohio.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
 Consolidated Radio Products Co., 350 W. Erie St.,
 Chicago 10, Ill.
 DX Radio Products Co., Inc., 2300 Armitage Ave.,
 Chicago 47, Ill.
 Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J.
 Glaser-Steers Corp., 2 Main St., Belleville 9, N. J.
 Merit Coil & Transformer Corp., 4427 N. Clark St.,
 Chicago 40, Ill.
 Missouri Research Labs., Inc., 2109 Locust St., St.
 Louis 3, Mo.
 Oaktron Electric Co., Tinley Park, Ill.
SIoux RADIO PRODUCTS, 100 Douglas Ave., Yankton,
 S. D. ADV. PG. 538.
SYNTRONIC INSTRUMENTS, INC., 100 Industrial Rd.,
 Addison, Ill. ADV. PG. 570.
 Tele-Coil Co., Inc., 275 Saunders St., Camden 5, N. J.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville,
 N. Y. ADV. PG. 417.
 Television Laboratories, Inc., Mill St., Wauconda, Ill.
 Thordarson Melissner Mfg. Co., 7th & Belmont Ave.,
 Mt. Carmel, Ill.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst,
 N. J. ADV. PG. 220.

**COILS—Television, Width Control, Centering,
Linearity & Peaking**

A. P. W. Co., 72 W. Main St., Rockaway, N. J.
 Ace Coil & Electronics Co., 912 Lincoln Highway,
 Metuchen, N. J.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Arco Transformer & Electric Co., 1602 S. Hanna St.,
 Fort Wayne, Ind.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury,
 Mass. ADV. PG. 600.
AUTOMATIC COIL CO., 415 Bedford Ave., Brooklyn,
 N. Y. ADV. PG. 675.
 Calbest Electronics Co., 4801 Exposition Blvd., Los
 Angeles 16, Calif.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
 Central Coil Co., 1720 N. Luett St., Indianapolis 22,
 Ind.
CHICAGO STANDARD TRANSFORMER CORP., 3521
 Addison St., Chicago, Ill. ADV. PG. 466, 467.
 Clippard Instrument Laboratory, Inc., 7350-90 Colerain
 Rd., Cincinnati 24, Ohio.
 Coilcraft, Inc., Cary, Ill.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Phila-
 delphia 33, Pa. ADV. PG. 589.
 DX Radio Products Co., Inc., 2300 Armitage Ave.,
 Chicago 47, Ill.
 Delevan Electronics Corp., Roycroft Campus, East Aurora,
 N. Y.
 Electro-Winders Co., Inc., 854 W. Front St., Covina,
 Calif.
 Essex Electronics, Berkeley Heights, N. J.
 Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J.
 General Coil Products Corp., 43 Roselle St., Mineola,
 N. Y.

Gray & Kuhn, Inc., 20 Railroad Ave., Roslyn Heights,
 N. Y.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave.,
 Chicago 25, Ill. ADV. PG. 590.
 Leonard Electric Products Co., Inc., 67 Thirty-Fourth
 St., Brooklyn 32, N. Y.
 Merit Coil & Transformer Corp., 4427 N. Clark St.,
 Chicago 40, Ill.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3,
 Calif.
 Muter Co., The, 1255 S. Michigan Ave., Chicago 5, Ill.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank,
 Calif.
NATIONAL COIL CO., P.O. Box 1237, Sheridan, Wyo.
 ADV. PG. 647.
 New York Coil Co., Phoenixville 12, Pa.
 Oaktron Electric Co., Tinley Park, Ill.
 Penn Tran Corp., Bellefonte, Pa.
**RADIO CORP. OF AMERICA, RCA ELECTRON TUBE
 DIV.**, 415 S. Fifth St., Harrison, N. J. ADV. PG. 453,
 Third & Fourth Covers.
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago
 40, Ill.
 Ram Electronics, Inc., 600 Industrial Ave., Paramus,
 N. J.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
REDMAN ELECTRONICS CORP., P. O. Box 72, Thomp-
 sonville, Conn. ADV. PG. 522.
 Sickles, F. W., Div., General Instrument Corp., 165
 Front St., Chicopee, Mass.
SIoux RADIO PRODUCTS, 100 Douglas Ave., Yankton,
 S. D. ADV. PG. 538.
 Standard Winding Corp., 44-62 Johnes St., Newburgh,
 N. Y.
 Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.
 Summit Coil Co., 4 Claremont Rd., Bernardville, N. J.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville,
 N. Y. ADV. PG. 417.
 Television Laboratories, Inc., Mill St., Wauconda, Ill.
 Thordarson Melissner Mfg. Co., 7th & Belmont Ave.,
 Mt. Carmel, Ill.
 Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon,
 N. Y.
 Todd-Tran Corp., 156 Gramatan Ave., Mt. Vernon,
 N. Y.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst,
 N. J. ADV. PG. 220.
 Vanguard Electronics Co., 3384 Motor Ave., Los
 Angeles 34, Calif.
 Warsaw Coil Co., Warsaw, Ind.

**COILS—Toroidal
See TOROIDS****COILS—Variable
See INDUCTANCES—Variable****COLORIMETERS—Photoelectric**

Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
 Bausch & Lomb Optical Co., 614 St. Paul St., Rochester
 2, N. Y.
 Coleman Instruments, Inc., 318 Madison St., Maywood,
 Ill.
 Electrical Service Co., 1271 Mission St., San Francisco,
 Calif.
 Gardner Lab., Inc., 4723 Elm St., Bethesda 14, Md.
GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
INSTRUMENT DEVELOPMENT LABORATORIES, INC.,
 163 Highland Ave., Needham Heights, Mass. ADV. PG.
 611.
 Magnuson Engineers, Inc., 509 Emory St., San Jose 10,
 Calif.
 Manufacturers Engineering & Equipment Corp., York &
 Sunset Lane, Hattboro, Pa.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
 Spino Div. of Beckman Instruments, Inc., Stanford
 Industrial Park, Palo Alto, Calif.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville,
 N. Y. ADV. PG. 417.

**COLUMBIAN
See METALS****COMMUNICATION SYSTEMS**

1. Aircraft
2. Airport Traffic Control
3. Carrier Current
4. Facsimile
5. Induction
6. Marine Radio-Telephone
7. Microwave
8. Portable Installation
9. Railroad
10. Teleprinter
11. Twinplex
12. Vehicular

ACF Electronics, 800 N. Pitt St., Alexandria, VA. 7.
 Acme Telephonix Div. of NEA Service Inc., West Third
 & Lakeside, Cleveland 13, Ohio. 4.
 Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle,
 N. Y. 12.
 Aeronautical Communications Equipment, Inc., 3090 S.W.
 37th Ave., Miami 33, Fla. 1.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport,
 P.O. Box 6527, Raleigh, N. C. 1-2-8-12.

Air Associates, Inc., Research & Development Div., 511
 Joyce St., Orange, N. J. 1-4-8-12.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old
 Country Rd., Mineola, N. Y. 2. ADV. PG. 253.
AIRCRAFT RADIO CORP., Boonton, N. J. 1-8. ADV.
 PG. 495.
 Alcor Electronics Corp., 180 Lafayette St., New York
 13, N. Y. 10.
**ALDEN ELECTRONIC & IMPULSE RECORDING EQUIP-
 MENT CO.**, Box 125, Westboro, Mass. 4. ADV.
 PG. 566.
 Alden Systems, Inc., Alden Research Center, Westboro,
 Mass. 4.
**AMERICAN MACHINE & FOUNDRY CO., DEFENSE
 PRODUCTS GROUP**, 1101 N. Royal St., Alexandria,
 Va. 2. ADV. PG. 491.
 Automation Management, Inc., Westboro, Mass. 4-10.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36,
 Calif. 12.
 Avionex Electronics Corp., 10855 Vanowen, North
 Hollywood, Calif. 1-2-6-8.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby,
 Pa. 10-12.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman
 Way, North Hollywood, Calif. 6.
 Bendix Radio Division, Bendix Aviation Corp., Balti-
 more 4, Md. 1-2-8-9-12.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC.,
 Dept G-13, 2200 Wright Ave., Richmond 3, Calif. 7-10.
 ADV. PG. 73-80.
 Bliss Electronic Corp., Box 366, Sussex, N. J. 8.
BOEHME, INC., H. O., 915 Broadway, New York 10,
 N. Y. 10. ADV. PG. 556.
 Brach Div. Electronic Research, General Bronze Corp.,
 711 Stewart Ave., Garden City, N. Y. 4-7.
 Budelman Radio Corp., 376 Fairfield Ave., Stamford,
 Conn. 3-7.
 C.G.S. Laboratories, Inc., 391 Ludlow St., Stamford,
 Conn. 10.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16,
 Quebec. 1-4-6-7-8.
 Collins Radio Co., Cedar Rapids, Iowa. 1-2-4-7-8-10.
 Communications Co., Inc., 300 Greco Ave., Coral Gables
 34, Fla. 2-12.
 Connecticut Telephone & Electric Corp., 70 Britannia
 St., Meriden, Conn. 12.
CRAIG SYSTEMS, INC., Danvers, Mass. 2. ADV. PG.
 387.
 Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville,
 N. Y. 8.
 Dalmotron Co., 534 Laurel St., San Carlos, Calif. 8.
 Davis Electronics, P.O. Box 1247, 4002 Burbank Blvd.,
 Burbank, Calif. 2-6-8-9-12.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield
 Ave., Clifton, N. J. 8-12.
 Elco Mfg. Co., 137 Herricks Rd., New Hyde Park,
 N. Y. 7.
 Electro Craft Industries, Inc., 68 Jackson Ave., Stamford,
 Conn. 8-12.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City,
 N. Y. 2-3-10-12.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart
 Ave., Garden City, N. Y. 1-7-8-12. ADV. PG. 594.
 Federal Telecommunication Labs., A Div. of IT&T, 500
 Washington Ave., Nutley 10, N. J. 7.
FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd.,
 Clifton, N. J. 1-2-8. ADV. PG. 355-357.
 Feiler Engineering & Mfg. Co., 8026 N. Monticello Ave.,
 Skokie, Ill. 8.
 General Bronze Corp., 711 Stewart Ave., Garden City,
 N. Y. 1-7.
 General Electric Co., Communication Products Dept.,
 Electronics Park, Syracuse, N. Y. 2-7-12.
 General Electric Co., Technical Products Dept., Elec-
 tronics Park, Syracuse, N. Y. 4-7.
 General Electronics Corp., 17 Madison Ave., Montgomery
 4, Ala. 3.
 Gosnet Co., 801 S. Main St., Burbank, Calif. 1-12.
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank,
 Calif. 6.
 Haller, Raymond & Brown, Inc., State College, Pa. 4.
 Hallicrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
 8-9-10-12.
 Haydu Electronic Products, Inc., 1426 W. Front St.,
 Plainfield, N. J. 1.
 Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles
 7, Calif. 1.
 Hogan Laboratories, Inc., 155 Perry St., New York 14,
 N. Y. 4.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11,
 Calif. 1-2-3-4-5-6-7-8-9-10-11-12.
**I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS
 DIV.**, 601 E. Erie Ave., Philadelphia 34, Pa. 7.
 ADV. PG. 474, 475.
 Industrial Radio Corp., 428 N. Parkside Ave., Chicago
 44, Ill. 8.
 Intercontinental Electronics Corp., 1551 Franklin Ave.,
 Mineola, N. Y. 2-6-7-8-9-12.
 International Research Associates, 2221 Warwick Ave.,
 Santa Monica, Calif. 1.
**INTERNATIONAL TELEPHONE & TELEGRAPH CORP.,
 INDUSTRIAL PRODUCTS DIV.**, 88 Kingsland Rd.,
 Clifton, N. J. 9-10-12. ADV. PG. 355-357.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave.,
 Lyons, Ill. 7. ADV. PG. 640.
K-F DEVELOPMENT CO., 2606 Spring St., Redwood
 City, Calif. 3. ADV. PG. 510.
 Kaar Engineering Co., 2995 Middlefield Road, P. O. Box
 1320, Palo Alto, Calif. 2-6-12.
 Kahn Research Labs., Elizabeth Bldg., 22 Pine St.,
 Freeport, N. Y. 2-4-6-10.

KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. 2. ADV. PG. 121-123.

Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif. 1-2-12.

Lesca, Via Bergamo 21, Milan, Italy. 3.

Lynch Carrier Systems, Inc., 695 Bryant St., San Francisco 7, Calif. 3.

Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J. 1-2-12.

Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind. 1.

Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y. 1-2-6-7-11-12.

Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y. 12.

Measurement Engineering, Ltd., Arnprior, Ontario, Canada. 6-8.

MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. 7. ADV. PG. 540.

Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn. 10.

Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore. 8-12.

Motorola Communications and Electronics Inc., 4501 Augusta Blvd., Chicago 51, Ill. 7-8-9-12.

Muirhead & Co. Ltd., Beckenham, Kent, England. 4.

MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W.C. 2, England. 6-8. ADV. PG. 560.

National Aeronautical Corp., Commerce Drive, Ft. Washington Industrial Park, Fort Washington, Pa. 1.

National Electronics Laboratories, Inc., 1713 Kalorama Rd., N.W., Washington 9, D. C. 2-12.

National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill. 2.

Neill Co., Inc., R.W., 4320 Montrose Ave., Chicago 41, Ill. 9.

Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn. North Electric Co., 553 S. Market St., Galion, Ohio. 2-3-9.

NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. 10-11. ADV. PG. 200-202.

Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa. 6.

PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. 1. ADV. PG. 268.

Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash. 3-6-7.

Pearce-Simpson, Inc., 3023 Coral Way, Miami 34; Fla. 6-12.

Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa. 5-7.

Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md. 7.

PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. 7. ADV. PG. 683.

Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass. 4-10.

Production Research Corp., Thornwood, N. Y. 7.

Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England. 2-6-7-8-9-12.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. 6-7-12. ADV. PG. 453, Third & Fourth Covers.

RADIO ENGINEERING LABS, INC., 36-40 37th St., Long Island City 1, N. Y. 7. ADV. PG. 107.

Radio Specialty Mfg. Co., 2023 S. E. Sixth Ave., Portland 14, Ore. 8-9.

Railway Communications, Inc., 9351 E. 59th St., Raytown, Mo. 3-5-9.

RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. 6-7. ADV. PG. 250, 251.

Remier Company, 2101 Bryant St., San Francisco 10, Calif. 5.

RHEEM ELECTRONICS DIVISION, 7777 Industry Ave., Rivera, Calif. 2. ADV. PG. 654.

Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif. 12.

Sonar Radio Corp., 3050 W. 21st St., Brooklyn 24, N. Y. 6.

Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England. 2-3-7-9.

Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif. 8.

Stelma, Inc., 190 Henry St., Stamford, Conn. 3-10.

Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill. 1-2-7-9.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y. 2-3-7-9.

SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. 1. ADV. PG. 733-739.

Technical Material Corp., P. O. Box 142, Mamaroneck, N. Y. 3-5-6-7-9.

Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia 4, Pa. 7.

Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill. 5-9.

TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. 4. ADV. PG. 468.

VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. 2. ADV. PG. 564.

Vocatron Mfg. Div. of Vocaline Co. of America, Inc., Old Saybrook, Conn. 3-8.

Western Union Telegraph Co., 60 Hudson St., New York 13, N. Y. 4-10.

Westrex Corp., 111 Eighth Ave., New York 11, N. Y. 1-2.

Wickes Engineering & Construction Co., P. O. Box 590, Camden 1, N. J. 2-8.

Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo. 1-2.

Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y. 8-9-12.

COMMUTATORS—Switching

AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 615.

APPLIED SCIENCE CORP. OF PRINCETON, P. O. Box 44, Princeton, N. J. ADV. PG. 464, 465.

Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.

BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.

Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., Box 10, Morristown, N. J.

Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.

COMPUTER INSTRUMENTS CORP., 92 Madison Ave., Hempstead, N. Y. ADV. PG. 648.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.

ELECTRO MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 539.

ELECTRO-TEC CORP., South Hackensack, N. J. ADV. PG. 149.

GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.

INSTRUMENT DEVELOPMENT LABORATORIES, INC., 163 Highland Ave., Needham Heights, Mass. ADV. PG. 611.

LAMTEX INDUSTRIES, INC., 51 State St., Westbury, N. Y. ADV. PG. 596.

LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.

Midwest Molding & Mfg. Co., Gurnee, Ill. ADV. PG. 622.

MINITRON, INC., 1105 Second St., Encinitas, Calif. 44, Pa.

Molded Insulation Co., 335 E. Price St., Philadelphia 14, Pa.

North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.

PHOTOCIRCUITS CORP., Glen Cove, N. Y. ADV. PG. 396.

Poly-Scientific Corp., Blacksburg, Va.

Seeburg, J. P., A Div. of Fort Pitt Industries, Inc., 1500 N. Dayton St., Chicago 22, Ill.

Sibley Co., The, Haddam, Conn.

Techniques, Inc., 52 Jackson Ave., Hackensack, N. J.

COMPARATORS—Automatic Resistance
See INSTRUMENTS—Electrical Measuring

COMPARATORS—Capacitance
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.

CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.

Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

Foxboro Co., The, Foxboro, Mass.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

Hunter-Bristol Corp., Bristol, Pa.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.

Metronix, Inc., Mill Lane, Waterford, Conn.

New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.

Pennsylvania Testing Lab., Inc., Doylestown, Pa.

Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.

COMPARATORS—Circuit Linearity
See INSTRUMENTS—Electrical Measuring

COMPARATORS—Dielectric
Central Research Laboratories, Inc., Red Wing, Minn.

Foxboro Co., The, Foxboro, Mass.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.

COMPARATORS—Inductance
Carlson & Nicholson, Inc., 497 Maynard Drive, Buffalo 21, N. Y.

CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

Hunter-Bristol Corp., Bristol, Pa.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

Metronix, Inc., Mill Lane, Waterford, Conn.

Pennsylvania Testing Lab., Inc., Doylestown, Pa.

COMPARATORS—Iron Core

CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.

Hunter-Bristol Corp., Bristol, Pa.

Pennsylvania Testing Lab., Inc., Doylestown, Pa.

COMPARATORS—Q

BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 427.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

COMPARATORS—Surface

See ANALYZERS—Surface

COMPARATORS—Voltage

See INSTRUMENTS—Electrical Measuring

COMPASSES—Electronic Gyro

Bludworth Marine Div., Kearfoot Co., Inc., 92 Gold St., New York 38, N. Y.

ECLIPSE PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 333-336.

Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.

COMPOUNDS—Cleaning

Caig Laboratories, 46 Stanwood Rd., New Hyde Park, N. Y.

Cobehn, Inc., 100 Passaic Ave., Caldwell, N. J.

Dow Chemical Co., Midland, Mich.

Enthone, Inc., 442 Elm St., New Haven 2, Conn.

GENERAL CEMENT MFG. CO., DIV. OF TETRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.

L & R Mfg. Co., 580 Elm St., Arlington, N. J.

London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.

Wye Industries, 6 General Devine Way, Boston 27, Mass.

ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 614.

COMPOUNDS—Potting

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.

BIWAX CORP., 3445 Howard St., Skokie, Ill. ADV. PG. 337.

BORTHIG CO., INC., GEORGE C., Box 11-A, East Rutherford, N. J. ADV. PG. 652.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.

Dow Corning Corp., Midland, Mich.

ELECTRONIC PLASTICS CORP., 675 Barbey St., Brooklyn 7, N. Y. ADV. PG. 663.

Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.

Hardman Co., Inc., H. V., 571 Cortland St., Belleville 9, N. J.

Hi-Test Chemical Corp., 722 64th St., Brooklyn 20, N. Y.

Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.

Louis Laboratories, 1947 Broadway, New York 23, N. Y.

Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.

Minnesota Mining & Mfg. Co., 900 Fauquier Ave., St. Paul 6, Minn.

Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.

Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Terrell Corp., 19 Lane St., Waltham 54, Mass.

Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 614.

COMPUTERS—Analog

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.

Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.

Austin Co., The, Special Devices Div., 76 Ninth Ave., New York 11, N. Y.

BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.

Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.

BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.

Century Engineers, Inc., Burbank, Calif.

Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.

Colorado Research Corp., 4697 E. Evans Ave., Denver 22, Colo.

Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.

COOK CO., FRANK R., 36 S. Santa Fe Drive, Denver 23, Colo. ADV. PG. 480.

DETROIT CONTROLS CORP., CONTROL ENGINEERING UNIT, 560 Providence Highway, Norwood, Mass. ADV. PG. 515.

Donner Scientific Co., 888 Galindo St., Concord, Calif. 862, Norman, Okla. ADV. PG. 460.
DORSETT LABORATORIES, INC., 401 E. Boyd St., Box 862, Norman, Okla. ADV. PG. 460.
 Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.

Electronic Associates, Inc., Long Branch, N. J.
 Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah.

FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Ford Instrument Co., Div. of Sperry Rand Corp., 31-10 Thomson Ave., Long Island City 1, N. Y.
 GPS Instrument Co., Inc., 811 Boylston St., Boston 16, Mass.

Gerber Scientific Instrument Co., 89 Spruce St., Hartford 1, Conn.

GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
 Goodyear Aircraft Corp., 1210 Massillon Road, Akron 15, Ohio.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.

Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.

Julie Research Laboratories, 556 W. 168th St., New York 32, N. Y.

KEARFOOT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.

KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.

LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.

Link Aviation, Inc., Binghamton, N. Y.

Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.

MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.

Mid-Century Instrument Corp., 611 Broadway, New York 12, N. Y.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.

North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.

Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass.

Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.

REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.

Reflectone Corp., Post Rd. & Myano Lane, Stamford, Conn.

Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.

Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.

Servomechanisms, Inc., 12500 Aviation Blvd., Hawthorne, Calif.

SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.

Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.

TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.

Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

COMPUTERS—Analog (Parts & Associated Equipment)

Refer to the following:

Amplifiers—D-C
 Amplifiers—Differential
 Amplifiers—Logarithmic
 Amplifiers—Operational
 Amplifiers—Servo
 Boards—Plotting
 Boards—Plug
 Demodulators
 Generators—Function
 Multipliers—Diode
 Multipliers—Electronic
 Multipliers—Servo
 Potentiometers—Initial Condition
 Power Supplies—Regulated
 Resolvers—Coordinate Transform
 Resolvers—Product
 Resolvers—Sine-Cosine
 Tachometers

COMPUTERS—Digital

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
 Alwac Corp., 13041 S. Cerise Ave., Hawthorne, Calif.
 Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.

Austin Co., The, Special Devices Div., 76 Ninth Ave., New York 11, N. Y.

Automation Management, Inc., Westboro, Mass.

BAIRD ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.

Bendix Computer Division, Bendix Aviation Corp., 5630 Arbor Vitae St., Los Angeles 45, Calif.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.

BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.

Century Engineers, Inc., Burbank, Calif.

COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 584.

Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.

Electro Data Div. of Burroughs Corp., 460 Sierra Madre Villa, Pasadena 6, Calif.

Electronic Computer Div., Underwood Corp., 35-10 36th Ave., Long Island City 6, N. Y.

Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.

FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.

Ford Instrument Co., Div. of Sperry Rand Corp., 31-10 Thomson Ave., Long Island City 1, N. Y.

GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.

Haller, Raymond & Brown, Inc., State College, Pa.

Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.

Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.

Julie Research Laboratories, 556 W. 168th St., New York 32, N. Y.

KEARFOOT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.

KIN TEL (KAY LAB.), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.

LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.

Litton Industries, Beverly Hills, Calif.

Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.

Marchant Research, Inc., Sub., Marchant Calculators, Inc., 1475 Powell St., Oakland, Calif.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

Modac Div. of Airborne Instruments Laboratory, 864 Franklin Ave., Thornwood, N. Y.

National Cash Register Co., Dayton 9, Ohio.

Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.

PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 268.

Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.

Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.

Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif.

Remington Rand Univac Div. of Sperry Rand Corp., Univac Par, St. Paul 16, Minn.

Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.

Southern Instruments Ltd., Computer Div., Frimley Rd., Camberley, Surrey.

Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.

Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

Technitrol Engineering Co., 1952 E. Allegheny Ave., Philadelphia 34, Pa.

Teleregister Corp., The, 445 Fairfield Ave., Stamford, Conn.

TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.

Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.

WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Ill. ADV. PG. 630.

COMPUTERS—Digital, General Purpose

See DATA RECORDING EQUIPMENT
 INVENTORYING SYSTEMS

COMPUTERS—Digital (Parts & Associated Equipment)

Refer to the following:

Accumulators
 Amplifiers—Pulse
 Circuits—Computer, Packaged
 Converters—Analog to Digital
 Converters—Card to Tape

Converters—Tape to Card
 Cores—Ferrite
 Counters—Electronic
 Diagnostic Equipment—Computer
 Heads—Recording
 Memory Systems
 Printers—High Speed
 Printers—Keyboard
 Printers—Line
 Registers—Shift
 Tape Mechanisms

COMPUTING SERVICES

A...Analog
 D...Digital

Alwac Corp., 13041 S. Cerise Ave., Hawthorne, Calif. D
 Armour Research Foundation, 10 W. 35th St., Chicago A-D
 16, Ill.

Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill. A

BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.

Burroughs Corp., Electronic Instrument Div., 1209 Vine St., Philadelphia, Pa.

Colorado Research Corp., 4697 E. Evans Ave., Denver 22, Colo.

COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 584.

Datamatic Corp., 100 River Road, Waltham, Mass. D

DORSETT LABORATORIES, INC., 401 E. Boyd St., Box 862, Norman, Okla. ADV. PG. 460.

Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.

Electro Data Div. of Burroughs Corp., 460 Sierra Madre Villa, Pasadena 6, Calif.

Electronics & Avionics Div. of The Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo. A-D

Electronics Manufacturing Div. of Sid Stone Radio Labs., 739 Tremont St., Boston, Mass.

Feedback Controls, Inc., 899 Main St., Waltham 54, Mass.

GPS Instrument Co., Inc., 811 Boylston St., Boston 16, Mass.

General Kinetics Inc., 555 23rd St., S., Arlington 2, Va.

Haller, Raymond & Brown, Inc., State College, Pa.

International Business Machines Corp., 590 Madison Ave., New York, N. Y.

Machine Statistics Co., 27 Thames St., New York 6, N. Y.

Mid Century Instrument Corp., 611 Broadway, New York 12, N. Y.

National Cash Register Co., Electronics Div., 3348 W. El Segundo Blvd., Hawthorne, Calif.

Northrop Aircraft Co., Hawthorne, Calif.

Philbrick Researches, Inc., Geo A., 230 Congress St., Boston 10, Mass.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.

Rea Co., Inc., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif.

Remington Rand Univac Div. of Sperry Rand Corp., Univac Park, St. Paul 16, Minn.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.

Westinghouse Electric Corp., Industry Engineering Dept., East Pittsburgh, Pa.

CONDENSERS See CAPACITORS

CONES—Speaker

Best Manufacturing Co., Inc., 1200 Grove St., Irvington 11, N. J.

Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.

Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.

Hawley Products Co., St. Charles, Ill.

Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.

Molded Fibreglas Co., 4401 Benefit Ave., Ashtabula, Ohio.

Stevens Products Inc., 86-88 Main St., East Orange, N. J.

CONNECTORS

1. Anode
2. Audio
3. Antennae
4. Coaxial Cable
5. Diode
6. Electrical, AN or MIL-C-5015
7. Hermetically Sealed
8. Interlock
9. Miniature
10. Phono
11. Power
12. Printed Circuit
13. R-F
14. Subminiature
15. Waterproof

- Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio. 1-2-8-9-10-11-12.
- Admittance-Namco Corp., Farmingdale, N. Y. 13.
- Aerolite Electronics Corp., 507 26th St., Union City, N. J. 1-3-4-8-10.
- Aeronautical Electric Co., 5656 Northwest Highway, Chicago 30, Ill. 8-9.
- AIRCRAFT RADIO CORP., Boonton, N. J. 11. ADV. PG. 495.
- AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. 13. ADV. PG. 532.
- ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. 1-2-9-10-11. ADV. PG. 567.
- Allied Industries, Inc., 25th & Woodland Ave., Louisville 10, Ky. 4-9-13.
- American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y. 9.
- AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. 4. ADV. PG. 279.
- AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. 11-15. ADV. PG. 491.
- AMP INC., 2100 Paxton St., Harrisburg, Pa. 12. ADV. PG. 339.
- AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. 2-3-4-6-7-9-11-12-13-14-15. ADV. PG. 158.
- Ampli-Vision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif. 4.
- ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. 3-4-13. ADV. PG. 112.
- ANTON ELECTRONIC LABORATORIES, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. 4-6-7-8-9-11-12-13-14-15. ADV. PG. 691.
- Armel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y. 6-9-11-12.
- Atlantic Research Corp., 901 N. Columbus, Alexandria, Va. 15.
- Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y. 2.
- AUTOMATIC METAL PRODUCTS CORP., 315 Berry St., Brooklyn 13, N. Y. 4-9-12-13-14. ADV. PG. 626.
- AUTOMATIC & PRECISION MFG. CO., 252 Hawthorne Ave., Yonkers 5, N. Y. 11. ADV. PG. 586.
- AVNET ELECTRONIC SUPPLY CO., Inc., 36 N. Moore St., New York 13, N. Y. 6-15. ADV. PG. 402.
- Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. 3-4-13-15.
- BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. 9. ADV. PG. 615.
- Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn. 12.
- Berg Mfg. Corp., 142 Reno Ave., New Cumberland, Pa. 12.
- BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. 1-2-8-9-10. ADV. PG. 501.
- Blonder-Tongue Laboratories, Inc., 9-25 Alling St., Newark 2, N. J. 4.
- British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y. 1-2-3-4-5-6-7-8-9-10-11-12-13-14-15.
- Buchanan Electrical Products Corp., 223 U. S. Route 22, Hillside, N. J. 9-11.
- Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn. 9-12.
- BURNDY CORPORATION, Norwalk, Conn. 4-16-15. ADV. PG. 441.
- Cal-Connector Co., 7414 Varna Ave., North Hollywood, Calif. 6.
- CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. 9. ADV. PG. 150.
- CANNON ELECTRIC CO., 3208 Humboldt St., Los Angeles 31, Calif. 2-4-6-7-9-11-12-13-14-15. ADV. PG. 44.
- CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. 2-3-9-10-12. ADV. PG. 131-133.
- CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. 1-2-3-8-9-10-11-12-13-14. ADV. PG. 638.
- Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio. 12.
- COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. 3-4-7-8-9-13-14-15. ADV. PG. 600.
- Communication Products Co., Inc., Marlboro, N. J. 4.
- Connector Corp., 6025 N. Keystone Ave., Chicago, Ill. 11.
- Connector Corp. of America, 3223 Burton Ave., Burbank, Calif. 4.
- Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn. 8-11-15.
- Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif. 9.
- CONSTANTIN & CO., L. L., Route #46, Lodi, N. J. 7. ADV. PG. 377.
- Continental Connector Corp., 34-63 56th St., Woodside 77, N. Y. 4-6-7-9-11-12-14-15.
- DAGE ELECTRIC CO., 67 N. Second St., Beech Grove, Ind. 4-7-9-12-13-14-15. ADV. PG. 497.
- DANBURY-KNUDSEN, INC., P. O. Box 170, Danbury, Conn. 4-11. ADV. PG. 631.
- Dante Electric Mfg. Co., Bantam, Conn. 11.
- DEJUR-AMSCO CORP., Northern Blvd., at 45th St., Long Island City 1, N. Y. 4-6-7-9-11-12-14. ADV. PG. 237-239.
- Deutsch Co., The Electrical Connector Div., 7000 Avalon Blvd., Los Angeles 3, Calif. 6-7-9.
- Dunlap Electronics, 764 Ninth St., Des Moines, Iowa. 12.
- Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y. 8-11.
- Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa. 10.
- ELCO CORP., "M" St. below Erie Ave., Philadelphia 24, Pa. 4-6-8-9-11-12-14. ADV. PG. 284.
- ELECTRICAL INDUSTRIES DIV., PHILIPS ELECTRONICS, INC., 691 Central Ave., Murray Hill, N. J. 7. ADV. PG. 315.
- Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y. 4.
- Electronic Service Corp., 2906 Birch St., Franklin Park, Ill. 7-15.
- Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J. 3-7-8-9-11-13-14-15.
- Entron, Inc., 4902 Lawrence St., Bladenburg, Md. 4-13.
- Equipment & Service Co., 6815 Oriole Drive, Dallas 9, Texas. 15.
- Farnsworth Electronics Co., Div. of IT&T, 3700 E. Pontiac St., Fort Wayne 1, Ind. 7-9.
- Frankel Connector Co., 27 Vestry St., New York, N. Y. 11.
- Garde Mfg. Co., 588 Eddy St., Providence 3, R. I. 3-6-7-9-12-13-14-15.
- GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. 3-4. ADV. PG. 543.
- Gemex Corp., The Industrial Products Div., 1200 Commerce Ave., Union, N. J. 4-14.
- GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. 3. ADV. PG. 543.
- General Electric Co., Technical Products Dept., Electronics Park, Syracuse N. Y. 2-3.
- GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. 7. ADV. PG. 679.
- GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. 2-4-13. ADV. PG. 316, 317.
- GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. 3-4-7-8-9-10-11-12-13-14-15. ADV. PG. 596.
- Glasseal Products Co., Inc., 1111 E. Elizabeth Ave., Linden, N. J. 7.
- GORN ELECTRIC CO., INC., Main St., Stamford, Conn. 7-9-12-15. ADV. PG. 273.
- Graham Mfg. Co., Inc., 247 Bridge St., East Greenwich, R. I. 4.
- Graphix-Circuits Div. of Clinch Mfg. Corp., 200 S. Turnbull Canyon Rd., La Puente, Calif. 12.
- GULTON INDUSTRIES, INC., Metuchen, N. J. 4-7-9-14-15. ADV. PG. 425.
- Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood Calif. 4-15.
- HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. 8-9-12-14-15. ADV. PG. 409.
- Harwood Co., Div. of Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif. 6-9.
- Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J. 1-5-14.
- Heldor Mfg. Corp., 238 Lewis St., Paterson, N. J. 7.
- HERMETIC SEAL CORP., 29-37 S. Sixth St., Newark 7, N. J. 6-7. ADV. PG. 325.
- Hermetite Corp., 702 Beacon St., Boston 15, Mass. 7.
- Hobson Bros., 4940 W. Lawrence Ave., Chicago 30, Ill. 1.
- Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
- INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. 1-3-8-10-12. ADV. PG. 693.
- Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn. 3-4-9-13.
- INSTRUMENT SPECIALTIES CO., INC., 254 Bergen Blvd., Little Falls, N. J. 12-14. ADV. PG. 240.
- INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. 10. ADV. PG. 582.
- INTERSTATE ELECTRONICS INC., 227 Fulton St., New York, N. Y. 4. ADV. PG. 462.
- International Pump & Machine Works, 81 Dorsa Ave., Livingston, N. J. 1.
- Irwin Products, 6312 N. Artesian Ave., Chicago 45, Ill. 10.
- J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. 3-13. ADV. PG. 640.
- Javex, P. O. Box 646, Redlands, Calif. 2-3-4-6-9-10-11-15.
- JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. 4. ADV. PG. 574.
- JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. 2-3-11. ADV. PG. 131-133.
- JOY MFG. CO., Dept. 39, Oliver Bldg., Pittsburgh 22, Pa. 6-11-15. ADV. PG. 362.
- Kennedy Industries, 6808 Vista Del Mar, Playa Del Rey, Calif. 12.
- KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. 5. ADV. PG. 675.
- KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. 2-3-4-7-9-10-11-13-14-15. ADV. PG. 448.
- Koiled Kords, Inc., Box K, New Haven 14, Conn. 6-15.
- Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill. 2-4-7-9-10-14-15.
- LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. 12. ADV. PG. 588.
- LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. 5-12. ADV. PG. 664.
- Livingston Electronic Corp., Livingston, N. J. 7-9-14.
- MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. 12-14. ADV. PG. 252.
- Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill. 1-8-10.
- MENDELSON SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. 4-9-13-14. ADV. PG. 690.
- METHODE MFG. CORP., 2021 W. Churchill St., Chicago 47, Ill. 9-12. ADV. PG. 204.
- Metron Corp., 8 Coryell St., Lambertville, N. J. 14.
- Microdot, Inc., 220 Pasadena Ave., South Pasadena, Calif. 4-12-13-14-15.
- Miller Electric Co., 120 Main St., Pawtucket, R. I. 8-11.
- Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Miss. 7-8-14.
- Minnesota Mining & Mfg. Co., 900 Fauquier Ave., St. Paul 6, Minn. 11.
- Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa. 2-3-4-6-7-8-9-12-13-15.
- Molding Corp. of America, 40 Church St., Pawtucket, R. I. 7-9-14.
- Morse Co., Frank W., 1300 Soldiers Field Rd., Boston 35, Mass. 9.
- Mosley Electronics, Inc., 8622 St. Charles Rock Rd., St. Louis 14, Mo. 3.
- Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y. 4-5-7-8-9-13-14.
- NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. 12.
- NATIONAL TEL-TRONICS CORP., 35 St. Casimir Ave., Yonkers, N. Y. 1-8-10. ADV. PG. 642.
- North Electric Co., 553 S. Market St., Galion, Ohio. 8-14.
- Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass. 6.
- Nugent Electronics Co., New Albany, Ind. 4-9-12-14.
- PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. 2-8-9-11-13-14. ADV. PG. 601.
- Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill. 1-8-10.
- Photo Chemical Products, Inc., 999A Stewart Ave., Garden City, N. Y. 12.
- Polytron Research, Inc., 7660 Woodbury Drive, Silver Spring, Md. 3-4-9.
- PROGRESS ELECTRONICS CO., 296 Broadway, New York 7, N. Y. 4-6. ADV. PG. 689.
- Pyle-National Co., 1334 N. Kostner Ave., Chicago 51, Ill. 4-6-7-11-15.
- Raypar, Inc., 7800 W. Addison St., Chicago, Ill. 1-8.
- Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass. 4-7-9.
- RAYTHEON MFG. CO. MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. 4-7-9. ADV. PG. 249.
- Richards Electrocraft, Inc., 3743 N. Kedzie Ave., Chicago 18, Ill. 2-9-10-14.
- Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass. 2-3-9.
- ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. 4-9-10-12-14. ADV. PG. 643.
- Royal Electric Corp., Pawtucket, R. I. 8-11.
- Russell & Stoll Co., Inc., 125-6 Barclay St., New York 7, N. Y. 4.
- SANDERS ASSOCIATES, INC., Nashua, N. H. 12. ADV. PG. 534.
- SCINTILLA DIVISION, BENDIX AVIATION CORP., Sidney, N. Y. 4-6-9-11-15. ADV. PG. 337.
- SEALLECTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. 9. ADV. PG. 484.
- Sherman Mfg. Co., H. B., 22 Barney St., Battle Creek, Mich. 6.
- Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif. 6.
- Sightmaster Corp., 85 Beechwood Ave., New Rochelle, N. Y. 4-9-11-13.
- Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y. 1-8-9-10.
- Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y. 9-14.
- SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. 2-9-10. ADV. PG. 619.
- SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. 1-3-8-9-10-11-14. ADV. PG. 733-739.
- Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y. 11.
- TECHRON CORP., 8 Washington St., Boston 8, Mass. 5-14. ADV. PG. 656.
- Telex, Inc., Telex Park, St. Paul 1, Minn. 9-14.
- Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio. 4.
- Thomas & Betts Co., Inc., 36 Butler St., Elizabeth 1, N. J. 4-11.
- Titeflex, Inc., Hendee St., Springfield 4, Mass. 6-15.
- Transradio, Ltd., 138A Cromwell Rd., London, S. W. 7, England. 9-13-14.
- Tru-Connector Corp., 416 Union St., Lynn, Mass. 4-7-9-13-15.
- UCINITE CO DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. 1-12. ADV. PG. 65.
- Union Electronics & Machine Corp., Moulton & Munroe Sts., Georgetown, Mass. 4-7-9-13-14.
- United Shoe Machinery Corp., 140 Federal St., Boston 7, Mass. 12.
- U. S. COMPONENTS, INC., 454 E. 148th St., New York 55, N. Y. 1-2-5-7-8-9-10-11-12-14-15. ADV. PG. 359.
- U. S. GASKET CO., Camden, N. J. 7-9-10-11-12-13-14-15. ADV. PG. 418, 635.
- Viking Industries, Inc., 21343 Roscoe Blvd., Canoga Park, Calif. 7-9-11-12-14-15.
- Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill. 1-8-10.
- Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill. 9.
- Waltham Horological Corp., 395 Lynnway, Lynn, Mass. 2-3-4-7-9-10-11-13-14-15.
- Warren Plastics Corp., Warren, Pa. 7.

CONTACTORS

Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y. 4-13.
Whitney Blake Co., New Haven 14, Conn. 6-7-9-10-11-12-14-15.
Winchester Electronics, Inc., Willard Rd., Norwalk, Conn. 1-4-6-7-9-11-12-14-15.

CONSOLES

See **CABINETS**
HOUSINGS

CONTACTORS

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
ALLIED CONTROL CO., INC., 2 East End Ave., New York 21, N. Y. ADV. PG. 126, 127.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
Clark Controller Co., The, 1146 E. 152nd St., Cleveland 10, Ohio.
Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 546.
Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
LEACH CORP., LEACH RELAY DIV., 5915 Avalon Blvd., Los Angeles 3, Calif. ADV. PG. 52.
Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
McQuay-Norris Mfg. Co., 2320 Marconi Ave., St. Louis 10, Mo.
MAKEPEACE CO., D.E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Synchro Start Products, Inc., 8151 Ridgeway Ave., Skokie, Ill.
Vickers Electric Division Vickers, Inc., 1825 Lobust St., St. Louis 3, Mo.
Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.
WARD LEONARD ELECTRIC CO., 31 South St., Mt. Vernon, N. Y. ADV. PG. 408.
Weltronic Co., 19500 W. Eighth Mile Rd., Detroit 19, Mich.
WHEELLOCK SIGNALS, INC., 273 Branchport Ave., Long Branch, N. J. ADV. PG. 599.
Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

CONTACTS—Electrical

Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 615.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
BRAININ CO., C. S., 320 Washington St., Mt. Vernon, N. Y. ADV. PG. 601.
Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Derringer Metallurgical Corp., 8127 Monticello Ave., Skokie, Ill.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.
GENERAL FINDINGS & SUPPLY CO., INDUSTRIAL DIV., Attleboro, Mass. ADV. PG. 327.
Gibson Electric Co., The, Box 527, Delmont, Pa.
Globe Electrical Mfg. Co., 1729 W. 134th St., Gardena, Calif.
GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 86, 87.
Keystone Carbon Co., Inc., Saint Marys, Pa.
Lumenite Electric Co., 407 S. Dearborn St., Chicago 5, Ill.
MAKEPEACE CO., D.E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
Mallory & Co., Inc., P.R., 34 S. Gray St., Indianapolis 6, Ind.
Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.

Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 558.
Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
Sinclair Mfg. Co., Chartley, Mass.
Stackpole Carbon Co., St. Mary's, Pa.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Steel Co., Herman D., Lafayette Bldg., Philadelphia 6, Pa.
Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
Tubular Rivet & Stud Co., Weston Ave., Wollaston (Quincy) 70, Mass.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 103.
Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.
WILSON CO., H. A., 2655 U. S. Hwy 22, Union, N. J. ADV. PG. 257.

CONTAINERS—for Shipping

See **PACKAGING MATERIALS**

CONTROLS—Alarm System

Advanced Electronics, Inc., 94 Silas Deane Highway, Rocky Hill, Conn.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
Daytron Corp., 216 S. Main St., Dayton, Ohio.
Deltron, Inc., 2905 N. Leithgow St., Philadelphia 33, Pa.
Devco Engineering Inc., P. O. Box 387, Caldwell, N. J.
Dondar Devices, 321 E. 6th St., Medford, Ore.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.
Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
GIANNINI & CO., INC., G.M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
International Research & Development Corp., 769 Thomas Lane, P. O. Box 1707, Columbus 16, Ohio.
Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
Philadelphia Scientific Glass Co., Quakertown, Pa.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
Recora Co., Inc., 6100 S. Archer Rd., Summit, Ill.
Remler Company, 2101 Bryant St., San Francisco 10, Calif.
Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
Russell & Stoll Co., Inc., 125-6 Barclay St., New York 7, N. Y.
Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W.C. 2, England.
Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
United Electric Controls Co., 85 School St., Watertown 72, Mass.
WESTINGHOUSE ELECTRIC CORP., P.O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
WHEELLOCK SIGNALS, INC., 273 Branchport Ave., Long Branch, N. J. ADV. PG. 599.
White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.

CONTROLS—Automatic Tuning

Collins Radio Co., Cedar Rapids, Iowa.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.

1957-1958 LISTINGS of

CONTROLS—Automatic Voltage Regulating

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
Airmec Ltd., High Wycombe, Buckinghamshire, England.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
Cinema-Television, Ltd., Worsley Bridge Rd., London S. E. 26, England.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
Deltron, Inc., 2905 N. Leithgow St., Philadelphia 33, Pa.
Dynamic Controls Co., 1955 Massachusetts Ave., Cambridge, Mass.
Electric Regulator Corp., Pearl St., Norwalk, Conn.
Electric Storage Battery Co., Exide Industrial Div., 42 S. 15th St., Philadelphia 2, Pa.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
Gates Radio Co., Quincy, Ill.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
KEPCO LABS., INC., 131-38 Sanford Ave., Flushing 55, N. Y. ADV. PG. 45-48.
Leach Corp., Inet-Palmer Div., 4441-43 S. Santa Fe Ave., Los Angeles 58, Calif.
MAGNETIC AMPLIFIERS, INC., 632 Tinton St., New York 55, N. Y. ADV. PG. 389.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
Modern Industries, Inc., 2601 Colorado Ave., Santa Monica, Calif.
National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
Optimized Devices, Inc., P.O. Box 38, Gedney Station, White Plains, N. Y.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 268.
Pitomere Log Corp., 237 Lafayette St., New York 12, N. Y.
Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
PRECISE MEASUREMENTS CO., R.D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.
Ram Meter, Inc., 1100 Hillton Rd., Ferndale, Detroit 20, Mich.
RED BANK DIVISION, BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 332.
Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. J.
Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
SUPERIOR ELECTRIC CO., THE, 5000 Bradley Ave., Bristol, Conn. ADV. PG. 96-99.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
Tuttle & Kift, 1823 N. Momitor St., Chicago 39, Ill.
United Electric Controls Co., 85 School St., Watertown 72, Mass.
VEC TROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
Wac Line, Inc., 35 S. St. Claire St., Dayton 2, Ohio.
WALLSON ASSOCIATES LTD., 963 Wrelinghuysen Ave., Newark 5, N. J. ADV. PG. 691.
Warren Mfg. Co., Inc., The, Newton Rd., Littleton, Mass.
Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.

CONTROLS—Capacitance Operated

Bristol Co., The, P.O. Box 1790EBG, Waterbury 20, Conn.
Electric Regulator Corp., Pearl St., Norwalk, Conn.
Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
Machinery Electrification, Inc., Northboro, Mass.
Minatron Corp., 17 Cliveden Place, Belle Mead, N. J.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Niagara Electron Laboratories, Andover, N. Y.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Ram Meter, Inc., 1100 Hilton Rd., Ferndale, Detroit 20, Mich.

CONTROLS—Chemical

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
 Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Devco Engineering Inc., P. O. Box 387, Caldwell, N. J.
 Foxboro Co., The, Foxboro, Mass.
 Lumenite Electric Co., 407 S. Dearborn St., Chicago 5, Ill.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Niagara Electron Laboratories, Andover, N. Y.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
POTTER AERONAUTICAL CORP., Route No. 22, Union, N. J. ADV. PG. 372, 373.
 Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

CONTROLS—Counting & Sorting

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Automation Management, Inc., Westboro, Mass.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Berkshire Laboratories, 580 Bank Village, Greenville, N. H.
BOWMAR INSTRUMENT CORP., 2415 Pennsylvania St., Fort Wayne, Ind. ADV. PG. 538, 539.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
COOK CO., FRANK R., 36 S. Santa Fe Drive, Denver 23, Colo. ADV. PG. 480.
 Datascan Inc., 48 North Rd., Little Falls, N. J.
 Eagle Signal Corp., Moline, Ill.
 Electrical Service Co., 1271 Mission St., San Francisco, Calif.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
 Electron-Radar Products, P. O. Box 50, Route No. 30, North Aurora, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Elesta Ltd., Bad Ragaz, Switzerland.
 First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
 Hagen Mfg. Co., 202 20th St., Moline, Ill.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnydale, Calif.
 Industrial Electronic Controls Co., 2271 E. 14th St., Brooklyn 29, N. Y.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Machinery Electrification, Inc., Northboro, Mass.
 Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.
 North Electric Co., 553 S. Market St., Galion, Ohio.
 Nuclear Research Corp., Southampton, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Phototwitch Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass.
POTTER AERONAUTICAL CORP., Route No. 22, Union, N. J. ADV. PG. 372, 373.
 Ram Meter Co., Inc., 1100 Hilton Rd., Ferndale, Detroit 20, Mich.
 Ransom Research, Box 382, San Pedro, Calif.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.

CONTROLS—Density

See **CONTROLS—Specific Gravity**

CONTROLS—Dimension

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
CURTISS-WRIGHT CORP., ELECTRONICS DIV., Plant No. 2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
 Dayton Corp., 216 S. Main St., Dayton, Ohio.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
 Foxboro Co., The, Foxboro, Mass.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Pratt & Whitney Co., Inc., Charter Oak Blvd., West Hartford 1, Conn.

CONTROLS—Door

Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
 Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gyro Electronics Co., 325 Canal St., New York, N. Y.
 Multi-Products Co., 21470 Coolidge Highway, Oak Park, Mich.
 Recora Co., Inc., 6100 S. Archer Rd., Summit, Ill.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Stanley Tools, New Britain, Conn.
 Telectron Co., The, Bldg. No. 9, Broward County International Airport, Fort Lauderdale, Fla.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.
 Wells-Gardner & Co., 2701 N. Kildare Ave., Chicago 39, Ill.
 Z & W Mfg. Corp., 30240 Lakeland Blvd., Wickliffe, Ohio.

CONTROLS—Electric DC Motor

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
 Arrow-Hart & Hegeman Electric Co., 103 Hawthorne St., Hartford 6, Conn.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
 Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
 Automatic Timing & Controls, Inc., King of Prussia, Pa.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
 Eagle Signal Corp., Moline, Ill.
 Electric Regulator Corp., Pearl St., Norwalk, Conn.
 Fairfield Engineering Corp., 934 Hope St., Springdale, Conn.
 Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
 Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
 Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
 Hanson-Gorrill-Brian, Inc., 85 Hazel St., Glen Cove, N. Y.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
 Leach Corp., Inet-Palmer Div., 4441-43 S. Santa Fe Ave., Los Angeles 58, Calif.
 Machinery Electrification, Inc., Northboro, Mass.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
 Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S. Minneapolis 8, Minn.
MODEL RECTIFIER CORP., 1065 Utica Ave., Brooklyn 3, N. Y. ADV. PG. 665, 667.

OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Servospeed Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson, N. J.
 Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. J.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill.
 Trumbull Components Div., General Electric Co., 41 Woodford Ave., Plainville, Conn.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
 Wacline Inc., 35 S. St. Claire St., Dayton 2, Ohio.
WARD LEONARD ELECTRIC CO., 31 South St., Mt. Vernon, N. Y. ADV. PG. 408.
 Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.

CONTROLS—Electronic AC Motor Speed

American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
 Arrow-Hart & Hegeman Electric Co., 103 Hawthorne St., Hartford 6, Conn.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 C.G.S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Electric Regulator Corp., Pearl St., Norwalk, Conn.
 Fairfield Engineering Corp., 934 Hope St., Springdale, Conn.
 Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
 Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
 Hanson-Gorrill-Brian, Inc., 85 Hazel St., Glen Cove, N. Y.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
 Leach Corp., Inet-Palmer Div., 4441-43 S. Santa Fe Ave., Los Angeles 58, Calif.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
 Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
 Robinette Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
 Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. J.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
VEC TROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
 Wacline, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
 Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.

CONTROLS—Elevator Leveling

Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Lumenite Electric Co., 407 S. Dearborn St., Chicago 5, Ill.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.

CONTROLS—Film Thickness

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.

Automatic Timing & Controls, Inc., King of Prussia, Pa.
Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
CURTIS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.

CONTROLS-Flame Failure

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Combustion Control Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
Elasta Ltd., Bad Ragaz, Switzerland.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Photo Crystals, Inc., 15 S. First St., Geneva, Ill.

CONTROLS-Flexible Mechanical Push-Pull

American Chain & Cable Co., Inc., 601 Stephenson Blvd., Detroit 2, Mich.
KUPPNER MFG. CORP., 398 State St., Binghamton, N. Y. ADV. PG. 684.
Simmonds Aerocessories, Inc., Tarrytown, N. Y.
STEWART CORP., F. W., 4311 Ravenswood Ave., Chicago 13, Ill. ADV. PG. 653.

CONTROLS-Fluid Conductivity

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
Foxboro Co., The, Foxboro, Mass.
Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
Machinery Electrification, Inc., Northboro, Mass.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

CONTROLS-Fluid Flow

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Buffalo Electronics Corp., 37 Franklin St., Buffalo 2, N. Y.
Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
Daytronic Corp., 216 S. Main St., Dayton, Ohio.
FENWAL INCORPORATED, Ashland, Mass. ADV. PG. 371.
Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
Foxboro Co., The, Foxboro, Mass.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GIANNINI & CO., INC., G.M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
GORN ELECTRIC CO., INC., Main St., Stamford, Conn. ADV. PG. 273.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
Hays Mfg. Co., 818 W. 12th St., Erie, Pa.
Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
Mercoind Corp., 4201 Belmont Ave., Chicago 41, Ill.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Nuclear Research Corp., Southampton, Pa.

POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
REVERE CORP. OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
Standard Instrument Corp., 657 Broadway, New York 12, N. Y.
UNITED AIRCRAFT PRODUCTS, INC., 1116 Bolander Ave., Dayton 1, Ohio. ADV. PG. 148.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
WAUGH ENGINEERING CO., 7842 Burnet Ave., Van Nuys, Calif. ADV. PG. 663.
Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.

CONTROLS-Food Processing

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
Automation Management, Inc., Westboro, Mass.
Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Buffalo Electronics Corp., 37 Franklin St., Buffalo 2, N. Y.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
Daytronic Corp., 216 S. Main St., Dayton, Ohio.
Devco Engineering Inc., P. O. Box 387, Caldwell, N. J.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
Foxboro Co., The, Foxboro, Mass.
Lumenite Electric Co., 407 S. Dearborn St., Chicago 5, Ill.
Mercoind Corp., 4201 Belmont Ave., Chicago 41, Ill.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Pantek Co., Box 212, El Segundo, Calif.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
Saratoga Scientific, P. O. Box 488, Saratoga, Calif.
Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

CONTROLS-Frequency

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
Electric Regulator Corp., Pearl St., Norwalk, Conn.
Engineered Magnetics Div. of Gulton Mfg. Corp., 11818 Teale St., Culver City, Calif.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Norram Laboratories, Ernst, Williams Bay, Wis.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
Ransom Research, Box 382, San Pedro, Calif.
Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.
Robinette Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
Spivey Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
Thompson Products, Inc., Electronics Div., 2196 Clarkwood Ave., Cleveland 3, Ohio.
Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
VECTROL ENGINEERING, INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. ADV. PG. 630.
Warren Mfg. Co., Inc., The, Newton Rd., Littleton, Mass.
WAUGH ENGINEERING CO., 7842 Burnet Ave., Van Nuys, Calif. ADV. PG. 663.

CONTROLS-Gain See ATTENUATORS

CONTROLS-Heat Treating

Automatic Timing & Controls, Inc., King of Prussia, Pa.
Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Huppert Co., K.H., 6864 S. Cottage Grove Ave., Chicago 37, Ill.
Kelvin & Hughes Ltd., New North Rd., Barking, Essex, England.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Magnadyne Co., 84 S. Water St., Port Chester, N. Y.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
UNITED AIRCRAFT PRODUCTS, INC., 116 Bolander Ave., Dayton 1, Ohio. ADV. PG. 148.
United Electric Controls Co., 85 School St., Watertown 72, Mass.

CONTROLS-Humidity

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Controlled Atmosphere Enclosures Corp., 230-11 141st Ave., Springfield Gardens 13, N. Y.
Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
FENWAL INCORPORATED, Ashland, Mass. ADV. PG. 371.
Foxboro Co., The, Foxboro, Mass.
Friez Instrument Div., Bendix Aviation Corp., Baltimore 4, Md.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
Lennard Co., Inc., P.M., P. O. Box 56, Village Station, New York 14, N. Y.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
Philadelphia Scientific Glass Co., Quakertown, Pa.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
Photo-Crystals, Inc., 15 S. First St., Geneva, Ill.
Serdex, Inc., 91 Cambridge St., Boston, Mass.
United Electric Controls Co., 85 School St., Watertown 72, Mass.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
Weston Electrical Instrument Corp., a Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

CONTROLS-Illumination

Airmec Ltd., High Wycombe, Buckinghamshire, England.
Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
American Mica Insulation Co., Manasquan, N. J.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
Elasta Ltd., Bad Ragaz, Switzerland.
Fairfield Engineering Corp., 934 Hope St., Springfield, Conn.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Hupp Electronics Co., a Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.
Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
Industrial Electronic Controls Co., 2271 E. 14th St., Brooklyn 29, N. Y.
Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
Micro Balancing, Inc., 191 Herricks Rd., Garden City Park, N. Y.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 North Electric Co., 553 S. Market St., Galion, Ohio.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Photoswitch Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass.
 Production Research Corp., Thornwood, N. Y.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

CONTROLS—Inspection

Advanced Electronics, Inc., 94 Silas Deane Highway, Rocky Hill, Conn.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
 Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
 Berkshire Laboratories, 580 Bank Village, Greenville, N. H.
COOK CO., FRANK R., 36 S. Santa Fe Drive, Denver 23, Colo. ADV. PG. 480.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Pratt & Whitney Co., Inc., Charter Oak Blvd., West Hartford 1, Conn.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

CONTROLS—Liquid-Level

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Airmec Ltd., High Wycombe, Buckinghamshire, England.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
 Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
 Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.
 Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
 Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Buffalo Electronics Corp., 37 Franklin St., Buffalo 2, N. Y.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
CURTIS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Deltron, Inc., 2905 N. Leithgow St., Philadelphia 33, Pa.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
 Electrical Service Co., 1271 Mission St., San Francisco, Calif.
 Electrovort, Inc., 489 Fifth Ave., New York 17, N. Y.
 Elsta Ltd., Bad Ragaz, Switzerland.
 Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 27, Mich.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville 1, Tenn.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
GORN ELECTRIC CO., INC., Main St., Stamford, Conn. ADV. PG. 273.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
GULTON INDUSTRIES INC., Metuchen, N. J. ADV. PG. 425.
 Haledy Electronics Co., 57 William St., New York 5, N. Y.
 Liquidometer Corp., The, Skillman Ave. at 36th St., Long Island City 1, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Machinery Electrification, Inc., Northboro, Mass.
 Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.

Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 Nuclear Research Corp., Southampton, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photoswitch Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass.
 Reed-Curtis Nuclear Industries, Inc., 9459 N. Jefferson Blvd., Culver City, Calif.
REVERE CORP. OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
 Robertshaw-Fulton Controls Co., Aeronautical Div., Santa Ana Freeway at Euclid Ave., Anaheim, Calif.
 Saratoga Scientific, P. O. Box 488, Saratoga, Calif.
 Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. J.
 Simmonds Aerocessories Inc., Tarrytown, N. Y.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Teller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
 Timount Instrument Co., 3119 W. Lake St., Chicago 12, Ill.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 Victory Engineering Corp., 101 Springfield Rd., Union, N. J.
 Warrick Co., Charles F., 1964 W. Eleven Mile Rd., Berkley, Mich.

CONTROLS—Loop Regulation

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
 Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
KEPCO LABS., INC., 131-38 Sanford Ave., Flushing 55, N. Y. ADV. PG. 45-48.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.
VEC TROL ENGINEERING, INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.

CONTROLS—Machine Safety

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Nelson Instrument Co., 607 Howard St., Evanston, Ill.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Recora Co., Inc., 6100 S. Archer Rd., Summit, Ill.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
 Synchro Start Products, Inc., 8151 Ridgeway Ave., Skokie, Ill.
 Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.

CONTROLS—Materials Thickness

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 Anthor Testing Instrument Co., 45-53 Van Sinderen Ave., Brooklyn 7, N. Y.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
 Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
 Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
 Automatic Timing & Controls, Inc., King of Prussia, Pa.

Branson Instruments, Inc., 1 Brown House Rd., Stamford, Conn.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
CURTIS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.
 Foxboro Co., The, Foxboro, Mass.
 Illumitronic Engineering, 680 E. Taylor, Sunnyvale, Calif.
 Industrial Electronics Co., Inc., Hanover, Mass.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Omega Instrument Co., Box 495M, Pasadena, Calif.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Pratt & Whitney Co., Inc., Charter Oak Blvd., West Hartford 1, Conn.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

CONTROLS—Mechanical Overload

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
 Machinery Electrification, Inc., Northboro, Mass.
 Magtrol, Inc., 38 Virginia Place, Buffalo, N. Y.
 Ram Meter, Inc., 1100 Hilton Rd., Ferndale, Detroit 20, Mich.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.

CONTROLS—Mechanical Switch

American Mica Insulation Co., Manasquan, N. J.
 Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
 Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
 Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
 Industrial Electronic Engineers, 3973 Lankershim Blvd., North Hollywood, Calif.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Synchro Start Products, Inc., 8151 Ridgeway Ave., Skokie, Ill.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.

CONTROLS—Moisture

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Controlled Atmosphere Enclosures Corp., 230-11 141st Ave., Springfield Gardens 13, N. Y.
 Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Foxboro Co., The, Foxboro, Mass.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 Philadelphia Scientific Glass Co., Quakertown, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

CONTROLS—Oxygen

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
United Electric Controls Co., 85 School St., Watertown 72, Mass.

CONTROLS—Package Wrapping

Airmec Ltd., High Wycombe, Buckinghamshire, England.
Automation Management, Inc., Westboro, Mass.
COOK CO., FRANK R., 36 S. Santa Fe Drive, Denver 23, Colo. ADV. PG. 480.
Devco Engineering Inc., P. O. Box 387, Caldwell, N. J.
Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.
Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
Machinery Electrification, Inc., Northboro, Mass.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
United Electric Controls Co., 85 School St., Watertown 72, Mass.

CONTROLS—pH

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Foxboro Co., The, Foxboro, Mass.
LaMotte Chemical Products Co., Chestertown, Md.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

CONTROLS—Photoelectric

Airmec Ltd., High Wycombe, Buckinghamshire, England.
Allegany Instrument Co., Inc., 1091 Willis Mountain, Cumberland, Md.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 537.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
Automation Management, Inc., Westboro, Mass.
Autotron, Inc., 3629 N. Vermilion St., Danville, Ill.
Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
Bristol Co., The, P.O. Box 1790 EBG, Waterbury 20, Conn.
Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
COOK CO., FRANK R., 36 S. Santa Fe Drive, Denver 23, Colo. ADV. PG. 480.
Deitz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.
Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.
Electrical Service Co., 1271 Mission St., San Francisco, Calif.
Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.
Elesta Ltd., Bad Ragaz, Switzerland.
Erdco Engineering Corp., Addison, Ill.
Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 546.
First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
Fisher-Pierce Co., Inc., 170 Pearl St., South Braintree (Boston 85), Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Haledy Electronics Co., 57 William St., New York 5, N. Y.
HUGHEY & PHILLIPS, INC., 3300 N. San Fernando Blvd., Burbank, Calif. ADV. PG. 685.
Hupp Electronics Co., A Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.
Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
Industrial Electronics Co., Inc., Hanover, Mass.

Intercontinental Dynamics Corp., 170 Coolidge Ave., Englewood, N. J.
Luminate Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
Machinery Electrification, Inc., Northboro, Mass.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
Nagop Associates, Inc., Littleton, Mass.
Optron Corp., 3526 State St., Santa Barbara, Calif.
Photo Crystals Inc., 115 S. First St., Geneva, Ill.
Photobell Co., Inc., Vesey St., New York 7, N. Y.
Photoswitch Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
Rockwell Engineering Co., 2125 E. 45th St., Indianapolis 5, Ind.
Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
Standard Instrument Corp., 657 Broadway, New York 12, N. Y.
Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
VETROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
WALLSON ASSOCIATES LTD., 963 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 691.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Weston Electrical Instrument Corp., A Sub of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
Worner Electronic Devices, Rankin, Ill.

CONTROLS—Photographic Exposure

Abrams Instrument Corp., 600-620 E. Shawassee St., Lansing, Mich.
Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
Electron-Radar Products, P.O. Box 50, Route #30, North Aurora, Ill.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Flight Research, Inc., P. O. Box 1-F, Richmond 1, Va.
Gordon Enterprises, 5362 N. Cahunga Blvd., North Hollywood, Calif.
Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
Maurer, Inc., J. A., 37-01 31st St., Long Island City 1, N. Y.
Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.
Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
Specialties, Inc., Skunks Misery Rd., Syosset, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
VETRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.
Weston Electrical Instrument Corp., A Sub of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.

CONTROLS—Positioning

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Allegany Instrument Co., Inc., 1091 Willis Mountain, Cumberland, Md.
Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
Automatic Timing & Controls, Inc., King of Prussia, Pa.
Automation Management, Inc., Westboro, Mass.
Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
BOWMAR INSTRUMENT CORP., 2415 Pennsylvania St., Fort Wayne, Ind. ADV. PG. 538, 539.
Bristol Co., The, P.O. Box 1790 EBG, Waterbury 20, Conn.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
Collins Radio Co., Cedar Rapids, Iowa.
Concord Control Inc., 1282 Soldiers Field Rd., Boston 35, Mass.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
Daytron Corp., 216 S. Main St., Dayton, Ohio.
DETROIT CONTROLS CORP., CONTROL ENGINEERING UNIT, 560 Providence Highway, Norwood, Mass. ADV. PG. 515.

DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 23, Mo. ADV. PG. 649.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.
Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
Feedback Controls, Inc., 899 Main St., Waltham 54, Mass.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Illumitronic Engineering, 680 E. Taylor, Sunnyvale, Calif.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MAGNETIC AMPLIFIERS, INC., 632 Tinton St., New York 55, N. Y. ADV. PG. 389.
Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL, BOSTON DIV., 1400 Soldiers Field Rd., Boston 15, Mass. ADV. PG. 445.
Niagara Electron Laboratories, Andover, N. Y.
OPAG ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 650.
Pantek Co., Box 12, El Segundo, Calif.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
Robinette Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
Saratoga Scientific, P. O. Box 488, Saratoga, Calif.
Slacky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. J.
Smith Mfg. Co., J. & H., Little Britain Rd., Newburgh, N. Y.
Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
Standard Instrument Corp., 657 Broadway, New York 12, N. Y.
Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Thompson Products, Inc., Electronics Div., 2196 Clarkwood Ave., Cleveland 3, Ohio.
TRANSCOIL CORP., Worcester, Penna. ADV. PG. 324.
Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
VETROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
WALLSON ASSOCIATES, LTD., 963 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 691.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. ADV. PG. 630.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.

CONTROLS—Power Level
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
North Electric Co., 553 S. Market St., Galion Ohio.
Ram Meter, Inc., 1100 Hilton Rd., Ferndale, Detroit 20, Mich.

CONTROLS—Pressure
Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
Amthor Testing Instrument Co., 45-53 Van Sinderen Ave., Brooklyn 7, N. Y.
Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
Automatic Timing & Controls, Inc., King of Prussia, Pa.
BJ ELECTRONICS, BORG-WARNER CORP., 3380 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC.,
Dept. G-13, 2200 Wright Ave., Richmond 3, Calif.
ADV. PG. 73-80.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.

Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.

Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.

Daytronix Corp., 216 S. Main St., Dayton, Ohio.
Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.

DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.

Endevco Corp., 161 E. California St., Pasadena, Calif.
Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.

Foxboro Co., The, Foxboro, Mass.
Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville 4, Tenn.

GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.

GORN ELECTRIC CO., INC., Main St., Stamford, Conn. ADV. PG. 273.

Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.

Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
Kybernetes Co., 9 E. 40th St., New York 16, N. Y.

McQuay-Norris Mfg. Co., 2320 Marconi Ave., St. Louis 10, Mo.

Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.

Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.

Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 3, Calif.

Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.

Niagara Electron Laboratories, Andover, N. Y.
Omego Instrument Co., Box 495M, Pasadena, Calif.

Pantek Co., Box 212, El Segundo, Calif.
Square D Co., 4041 N. Richards, Milwaukee 12, Wis.

Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

United Electric Controls Co., 85 School St., Watertown 72, Mass.
VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.

Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

CONTROLS—Printing

Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.

Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.

Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.

Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

CONTROLS—Radio Remote

A. R. F. Products, Inc., 7627 Lake St., River Forest, Ill.
Aeronautical Communications Equipment, Inc., 3090 S.W. 37th Ave., Miami 33, Fla.

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.

AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.

Babcock Radio Engineering Co., P. O. Box 3097, Van Nuys, Calif.

Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.

Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

CG Electronics Div. of Gulton Industries, Inc., 305 Dallas St., N.E., Albuquerque, N. M.
Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.

Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Que.
Collins Radio Co., Cedar Rapids, Iowa.

Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
DORSETT LABORATORIES, INC., 401 E. Boyd St., Box 862, Norman, Okla. ADV. PG. 460.

Electronic Protection, Inc., 452 W. Chicago Ave., Chicago 10, Ill.

Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.

General Electric Co., Technical Products Dept. Electronics Park, Syracuse, N. Y.

Gyro Electronics Co., 325 Canal St., New York, N. Y.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.

Hupp Electronics Co., a Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.

Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Multi-Products Co., 21470 Coolidge Highway, Oak Park, Mich.

Navigation Electronics Corp., 11616 Hart St., North Hollywood, Calif.

Nelson Instrument Co., 607 Howard St., Evanston, Ill.
North Electric Co., 553 S. Market St., Galion, Ohio.

Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.

Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.

Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.

Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.

Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.

Ta-Mar, Inc., 11571 W. Jefferson Blvd., Culver City, Calif.

Technical Materiel Corp., P. O. Box 142 Mamaroneck, N. Y.

TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. ADV. PG. 661.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Telephonics Corp., Park Ave., Huntington, N. Y.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.

Wells-Gardner & Co., 2701 N. Kildare Ave., Chicago 39, Ill.

Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.

Datascan Inc., 48 Notch Rd., Little Falls, N. J.
Deitz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.

Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.

Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.

Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.

Fisher-Pierce Co., Inc., 170 Pearl St., South Braintree (Boston 85), Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Machinery Electrification, Inc., Northboro, Mass.
Pantek Co., Box 212, El Segundo, Calif.

Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
Photowitch Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass.

RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.

Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.

CONTROLS—Register

Datascan Inc., 48 Notch Rd., Little Falls, N. J.
Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.

Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.

Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.

Machinery Electrification, Inc., Northboro, Mass.
Photobell Co., 43 Vesey St., New York 7, N. Y.

RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.

CONTROLS—Radio Remote

A. R. F. Products, Inc., 7627 Lake St., River Forest, Ill.
Aeronautical Communications Equipment, Inc., 3090 S.W. 37th Ave., Miami 33, Fla.

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.

AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.

Babcock Radio Engineering Co., P. O. Box 3097, Van Nuys, Calif.

Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.

Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

CG Electronics Div. of Gulton Industries, Inc., 305 Dallas St., N.E., Albuquerque, N. M.

Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.

Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Que.

Collins Radio Co., Cedar Rapids, Iowa.

Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.

DORSETT LABORATORIES, INC., 401 E. Boyd St., Box 862, Norman, Okla. ADV. PG. 460.

Electronic Protection, Inc., 452 W. Chicago Ave., Chicago 10, Ill.

Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.

FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.

General Electric Co., Technical Products Dept. Electronics Park, Syracuse, N. Y.

Gyro Electronics Co., 325 Canal St., New York, N. Y.

Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.

Hupp Electronics Co., a Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.

Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.

Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Multi-Products Co., 21470 Coolidge Highway, Oak Park, Mich.

Navigation Electronics Corp., 11616 Hart St., North Hollywood, Calif.

Nelson Instrument Co., 607 Howard St., Evanston, Ill.

North Electric Co., 553 S. Market St., Galion, Ohio.

Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.

Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.

Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.

Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.

Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.

Ta-Mar, Inc., 11571 W. Jefferson Blvd., Culver City, Calif.

Technical Materiel Corp., P. O. Box 142 Mamaroneck, N. Y.

TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. ADV. PG. 661.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Telephonics Corp., Park Ave., Huntington, N. Y.

VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.

Wells-Gardner & Co., 2701 N. Kildare Ave., Chicago 39, Ill.

Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.

Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.

BOWMAR INSTRUMENT CORP., 2415 Pennsylvania St., Fort Wayne, Ind. ADV. PG. 538, 539.

BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

Colorado Research Corp., 4697 E. Evans Ave., Denver 22, Colo.

Concord Control Inc., 1282 Soldiers Field Rd., Boston 35, Mass.

Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.

CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.

COOK CO., FRANK R., 36 S. Santa Fe Drive, Denver 23, Colo. ADV. PG. 480.

Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.

Daco Instrument Co., Tillary & Prince Sts., Brooklyn 1, N. Y.

Datascan Inc., 48 Notch Rd., Little Falls, N. J.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.

DETROIT CONTROLS CORP., CONTROL ENGINEERING UNIT, 560 Providence Highway, Norwood, Mass. ADV. PG. 515.

DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.

EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.

Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.

Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.

Feedback Controls, Inc., 899 Main St., Waltham 54, Mass.

Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.

GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.

GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.

Hanson-Gorrill-Brian, Inc., 85 Hazel St., Glen Cove, N. Y.

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.

KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.

Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.

Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.

Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.

MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.

MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.

Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.

Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

MINNEAPOLIS-HONEYWELL, BOSTON DIV., 1400 Soldiers Field Rd., Boston 15, Mass. ADV. PG. 445.

Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo.

Moog Valve Co., Inc., Proner Airport, East Aurora, N. Y.

Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.

Pegasus Laboratories, Inc., 3692 Eleven Mile Rd., Berkley, Mich.

Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.

REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.

Robbinette Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.

Rockwell Engineering Co., 2125 E. 45th St., Indianapolis 5, Ind.

Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.

Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.

Servomechanisms, Inc., 12500 Aviation Blvd., Hawthorne, Calif.

Servo-Tek Products Co., Inc., 1086 Goffie Rd., Hawthorne, N. J.

Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.

Stator Electric Corp., 46-25 58th St., Woodside, N. Y.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.

Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.

Thompson Products, Inc., Electronics Div., 2196 Clarkwood Ave., Cleveland 3, Ohio.

Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford Conn. ADV. PG. 632.
 Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
 WacLine, Inc., 35 S. St. Claire St., Dayton 2, Ohio.
WALLSON ASSOCIATES, LTD., 963 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 691.
 Warren Mfg. Co., Inc., The Newton Rd., Littleton, Mass.
 White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.

CONTROLS—Smoke & Combustion, Electronic

BARBER-COLMAN CO., Dept., 766, Rockford, Ill. ADV. PG. 430.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Combustion Control Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.
 Kelvin & Hughes Ltd., New North Rd., Barking, Essex, England.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Photo Crystals Inc., 15 S. First St., Geneva, Ill.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
 Standard Instrument Corp., 657 Broadway, New York 12, N. Y.
VECTROL ENGINEERING, INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
 Worner Electronic Devices, Rankin, Ill.

CONTROLS—Sound System

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
 Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
 Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

CONTROLS—Specific Gravity

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
 Nuclear Research Corp., Southampton, Pa.

CONTROLS—Strain

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Ellis Associates, Box 77, Pelham, N. Y.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Kelvin & Hughes Ltd., New North Rd., Barking, Essex, England.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
OWEN LABORATORIES, INC., 55 Beacon Place, Pasadena, Calif. ADV. PG. 680.
POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.

Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.

CONTROLS—Temperature, Electronic

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
 Automatic Timing & Controls, Inc., King of Prussia, Pa.
 Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
 Delttron, Inc., 2905 N. Leithgow St., Philadelphia 33, Pa.
DETROIT CONTROLS CORP., CONTROL ENGINEERING UNIT, 560 Providence Highway, Norwood, Mass. ADV. PG. 515.
 Devco Engineering Inc., P. O. Box 387, Caldwell, N. J.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Fairfield Engineering Corp., 934 Hope St., Springfield, Conn.
FENVAL INCORPORATED, Ashland, Mass. ADV. PG. 371.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 General Electric Co. Technical Products Dept., Electronics Park, Syracuse, N. Y.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
 Huppert Co., K.H., 6864 S. Cottage Grove Ave., Chicago 37, Ill.
 Kelvin & Hughes Ltd., New North Rd., Barking, Essex, England.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
 Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 Modern Industries, Inc., 2601 Colorado Ave., Santa Monica, Calif.
 Neutronics Research Co., 165 Lake St., Waltham, Mass.
 Niagara Electron Laboratories, Andover, N. Y.
 Philadelphia Scientific Glass Co., Quakertown, Pa.
 Photoswitch Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 Serdex, Inc., 91 Cambridge St., Boston, Mass.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
 Victory Engineering Corp., 101 Springfield Rd., Union, N. J.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
 Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
 White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.
 Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

CONTROLS—Tentering

Servospeed Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson, N. J.

CONTROLS—Timing

Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing 1, Mich.
ADAMS & WESTLAKE CO., THE, Michigan St., Elkhart, Ind. ADV. PG. 58, 59.
 Alden Systems, Inc., Alden Research Center, Westborough, Mass.
 Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
 Automatic Timing & Controls, Inc., King of Prussia, Pa.
 Automation Management, Inc., Westboro, Mass.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
 Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.
 Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solano Beach, Calif.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Bristol Motor Div., Vocaline Co., of America, Inc., Old Saybrook, Conn.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
 Cramer Controls Corp., Box 13, Centerbrook, Conn.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Datascan Inc., 48 Notch Rd., Little Falls, N. J.
 Deltz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
 Eagle Signal Corp., Moline, Ill.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Elesta Ltd., Bad Ragaz, Switzerland.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 546.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
 First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
 Foxboro Co., The, Foxboro, Mass.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Electric Co., Clock and Timer Dept., Ashland, Mass.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
 Hagen Mfg. Co., 202 20th St., Moline, Ill.
HAYDON CO., A. W. THE, 238 N. Elm St., Waterbury, Conn. ADV. PG. 531.
HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. ADV. PG. 157.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 506.
 Ingraham Co., E., Bristol, Conn.
 Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Machinery Electrification, Inc., Northboro, Mass.
 Mack Electronics, Div. of Mack Trucks, Inc., 40 Leoni St., Boston 15, Mass.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.
 Norrman Laboratories, Ernst, Williams Bay, Wis.
 Pantek Co., Box 212, El Segundo, Calif.
 Paragon Electric Co., Two Rivers, Wis.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Post Machinery Co., Electronic Products Div., 14 Elliott St., Beverly, Mass.
 Pratt & Whitney Co., Inc., Charter Oak Blvd., West Hartford 1, Conn.
 Ransom Research, Box 382, San Pedro, Calif.
 Reliance Automatic Lighting Co., 1919 Mead St., Racine, Wis.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
 Robotron Corp., 21300 W. Eight Mile Rd., Detroit 15, Mich.

Rockwell Engineering Co., 2125 E. 45th St., Indianapolis 5, Ind.
 Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 Servo-Tek Products Co., Inc., 1086 Goffie Rd., Hawthorne, N. J.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Tork Time Controls Inc., 32 Grove St., Mt. Vernon, N. Y.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
VECTROL ENGINEERING, INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
 Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
 Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.
WALLSON ASSOCIATES LTD., 963 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 691.
 Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. ADV. PG. 630.
 Welttron Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

CONTROLS—Torque, Electronic

Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Foxboro Co., The, Foxboro, Mass.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
 Magtrol, Inc., 38 Virginia Place, Buffalo, N. Y.
 Robinette Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
 Servospeed Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson, N. J.
 Servo-Tek Products Co., Inc., 1086 Goffie Rd., Hawthorne, N. J.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
 WacLine, Inc., 35 S. St. Claire St., Dayton 2, Ohio.

CONTROLS—Turbidity

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.

CONTROLS—Ultrasonic

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 605.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
 Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
 Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

CONTROLS—Vacuum

Alfred Electronics, 897 Commercial St., Palo Alto, Calif.
 Anthor Testing Instrument Co., 45-53 Van Sinderen Ave., Brooklyn 7, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Consolidated Electrodynamics Corp., Rochester Div., Rochester 3, N. Y.
 Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.

Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
 Foxboro Co., The, Foxboro, Mass.
 Fulton Syphon Div., Robertshaw-Fulton Controls Co., Knoxville 4, Tenn.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GIANNINI & CO. INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
GORN ELECTRIC CO., INC., Main St., Stamford, Conn. ADV. PG. 273.
 Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
 Hastings-Raydist, Inc., Hampton 9, Va.
 High Vacuum Equipment Corp., 2 Churchill Rd., Hingham, Mass.
 Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston, Mass.
 Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
 Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
 Mercoird Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S. Minneapolis 8, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windmill Aves., Philadelphia 44, Pa. ADV. PG. 447.
NRC EQUIPMENT CORP., 169 Charlemont St., Newton 61, Mass. ADV. PG. 102.
 Philadelphia Scientific Glass Co., Quakertown, Pa.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 Research Electronics Laboratories, Roslyn, Pa.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 Vacuum Equipment Div., of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.
 Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

CONTROLS—Ventilating Control System

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
 Foxboro Co., The, Foxboro, Mass.
 Fulton Syphon Div., Robertshaw-Fulton Controls Co., Knoxville 4, Tenn.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
 Mercoird Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S. Minneapolis 8, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
 White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.

CONTROLS—Volume & Tone

M . . . Indicates Miniature Type
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Carter Parts Co., 3401 Madison, Skokie, Ill.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
CHICAGO TELEPHONE & SUPPLY CORP., 1142 W. Beardsely Ave., Elkhart, Ind. ADV. PG. 223.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.
 Lesa, Via Bergamo 21, Milan, Italy.
 Stackpole Carbon Co., St. Marys, Pa.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 Trimm, Inc., 400 W. Lake St., Libertyville, Ill. M.

CONTROLS—Weight

Automatic Timing & Controls, Inc., King of Prussia, Pa.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
CURTIS-WRIGHT CORP., ELECTRONICS DIV., PLANT #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.

Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
 Foxboro Co., The, Foxboro, Mass.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Industrial Electronic Engineers, 3973 Lankershim Blvd., North Hollywood, Calif.
 Niagara Electron Laboratories, Andover, N. Y.
 Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
 Pantek Co., Box 212, El Segundo, Calif.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.

CONTROLS—Welding

BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.
 Ewald Instruments, Route 7E, Kent, Conn.
 Federal Tool Engineering, Inc., 1386 Pompton Ave., Cedar Grove, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
 Peer, Inc., Benton Harbor, Mich.
 Robotron Corp., 21300 W. Eight Mile Rd., Detroit 19, Mich.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
 Welttron Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.

CONVERTERS

1. Analog to Digital
2. Card to Tape
3. Computing
4. Digital to Analog
5. Frequency Shift Keying
6. High Frequency
7. Low Frequency
8. Power Frequency, Electronic
9. Power Frequency, Rotary
10. Power Frequency, Vibrator
- 10a. Single Sideband Receiver Vibrator
11. R-F
12. Tape to Card
13. Television (UHF to VHF)

ACF Electronics, 800 N. Pitt St., Alexandria, Va. 1-4.
 Acme Electronix Div. of NEA Service, Inc., West Third & Lakeside, Cleveland 13, Ohio. 5.
 Adcon Corp., 1117 Commonwealth Ave., Boston 15, Mass. 1.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J. 1-4.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. 1-2-12. ADV. PG. 253.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. 1-4. ADV. PG. 615.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. 10. ADV. PG. 297-300.
 American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif. 1.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. 1-4. ADV. PG. 491.
 American Mica Insulation Co., Manassas, N. J. 10.
AMERICAN TELEVISION & RADIO CO., 300 E. Fourth St., St. Paul 1, Minn. 10. ADV. PG. 222.
 Anatron Div. of Endevo Corp., 165 E. California St., Pasadena, Calif. 1.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. 11-13. ADV. PG. 672.
 Austin Co., The, Special Devices Div., 76 Ninth Ave., New York 11, N. Y. 1.
 Avion Division, ACF Industries, Inc., 11 Park Place, Paramus, N. J. 4.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. 1. ADV. PG. 541.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. 1-4. ADV. PG. 537.
 Baldwin Piano Co., 1801 Gilbert St., Cincinnati 2, Ohio. 1.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. 5-6-7-10a-11.
 Benson-Lehner Corp., 11930 W. Olympic Blvd., Los Angeles 64, Calif. 1-4.
 Bergen Laboratories, 247 Crooks Ave., Clifton, N. J. 1.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. 1-2-3-4-5-6-7-8-12. ADV. PG. 73-80.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solano Beach, Calif. 6-9.
 Blonder-Tongue Laboratories, Inc., 9-25 Alling St., Newark 2, N. J. 13.

BOEHME, INC., H. O., 915 Broadway, New York 10, N. Y. ADV. PG. 556.
Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J. 13.
Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J. 9.
BOONTON RADIO CORP., Boonton, N. J. 11. ADV. PG. 427.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. 2-11. ADV. PG. 286.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn. 1.
Carter Motor Co., 2746 W. George St., Chicago 18, Ill. 9.
Century Engineers, Inc., Burbank, Calif. 1.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. 10a. ADV. PG. 632.
Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill. 8.
Coleman Engineering Co., Inc., 6040 W. Jefferson Blvd., Los Angeles 16, Calif. 1.
Colorado Research Corp., 4697 E. Evans Ave., Denver 22, Colo. 1.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y. 1-2-3-4-7-8-12.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif. 1.
CONTINENTAL ELECTRIC CO., INC., 334 Ferry St., Newark 5, N. J. 6-7-9. ADV. PG. 557.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. 8. ADV. PG. 680.
Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y. 10a.
D & R LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. 10a. ADV. PG. 698.
Delaware Products Co., 300 Broadway, Camden 3, N. J. 1.
Dynaparc Corp., 5150 Church St., Skokie, Ill. 1.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. 1. ADV. PG. 333-336.
Eicor, Inc., 4235 W. North Ave., Chicago 39, Ill. 9.
ELECTRIC SPECIALTY CO., 300 South St., Stamford, Conn. 6-7-9. ADV. PG. 490.
Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif. 1.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. 5-8-10. ADV. PG. 556.
Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J. 8.
ELECTRONICS COMPUTER CORP., 6191 Ridge Ave., Philadelphia 28, Pa. 1. ADV. PG. 635.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md. 13.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. 1-4. ADV. PG. 233-235.
Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y. 5.
Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y. 1.
Fireye Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass. 1.
Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa. 1.
Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa. 1-3.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 6-7-9. ADV. PG. 1-12.
Genisec, Inc., 2233 Federal Ave., Los Angeles 64, Calif. 1.
Georator Corp., Manassas, Va. 7-9.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. 1-4. ADV. PG. 344.
Gonset Co., 801 S. Main St., Burbank, Calif. 6-11.
GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. 4. ADV. PG. 684.
Great Lakes Electric Mfg. Co., 17 S. Desplaines St., Chicago 6, Ill. 6-7.
Gurley, W. & L. E., 514 Fulton St., Troy, N. Y. 1.
Gyro Electronics Co., 325 Canal St., New York, N. Y. 6.
Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles 7, Calif. 5-10a.
Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y. 5.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md. 1-4.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif. 1-2-3-4-5-6-7-8-9-10-11-12.
Hycor Electronics, Inc., P. O. Bin D, Pasadena, Calif. 1.
I.D.E.A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind. 13.
I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio. 8.
Industrial Electronic Engineers, 3973 Lankershim Blvd., North Hollywood, Calif. 1-3.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. 8. ADV. PG. 676.
INSTRUMENT DEVELOPMENT LABORATORIES, INC., 163 Highland Ave., Needham Heights, Mass. 1. ADV. PG. 611.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. 6-7-8-9-10. ADV. PG. 613.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. 1-8. ADV. PG. 355-357.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. 11. ADV. PG. 640.
Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md. 1-3-4.
JAMES VIBRAPOWR CO., 4050 N. Rockwell St., Chicago 18, Ill. 10. ADV. PG. 542.

JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. 13. ADV. PG. 574.
Julie Research Laboratories, 556 W. 168th St., New York 32, N. Y. 4.
Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y. 10a.
Kato Engineering Co., 1415 First Ave., Mankato, Minn. 6-7-9.
Katolight Corp., First Ave. at Chestnut, Mankato, Minn. 9.
KEARFOTT CO., INC., ENGINEERING SALES DIV., 1378 Main Ave., Clifton, N. J. 1-4. ADV. PG. 181.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. 1-3-4. ADV. PG. 121-123.
Leach Corp., Inet-Palmer Div., 4441-43 S. Santa Fe Ave., Los Angeles 58, Calif. 6-7-8-9.
Lesa, Via Bergamo 21, Milan, Italy. 9-10.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. 1-2-3-4-12. ADV. PG. 183.
Liquidometer Corp., The, Skillman Ave. at 36th St., Long Island City 1, N. Y. 7.
Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass. 1-2-3-4-12.
MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass. 1-5.
Magnetics Research Co., Cor. Grove St. & E. Post Rd., White Plains, N. Y. 1-2-3-12.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y. 1-8.
Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo. 1.
Mohawk Electronic Research Labs., Inc., Box 126-A, RD 4, Amsterdam, N. Y. 11.
Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore. 6.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. 8. ADV. PG. 369, 370.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif. 1-8.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn. 1-4.
North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif. 1.
NORTH HILLS ELECTRIC CO., INC., 402 Sagamore Ave., Mineola, N. Y. 8. ADV. PG. 428.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. 5. ADV. PG. 200-202.
OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. 8. ADV. PG. 650.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y. 1-4.
PERKIN ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. 6-7-8-9. ADV. PG. 67.
Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y. 1-4.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y. 6.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. 4-7. ADV. PG. 372, 373.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y. 1-2-3-4-12.
POWER SOURCES, INC., Northwest Industrial Park, Burlington, Mass. 8. ADV. PG. 674.
PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. 10. ADV. PG. 399.
Radiart Corp., The, 3455 Vega Ave., Cleveland 13, Ohio. 10.
Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill. 1.
Radiation, Inc., Melbourne, Fla. 1.
Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.
Radio Mfg. Engineers, Inc., 501 Walnut St., Washington, Ill. 6-10a.
Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif. 1.
Robbins & Myers, Inc., 1345 Lagonda Ave., Springfield 99, Ohio. 6.
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill. 9.
Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif. 3.
Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y. 8.
Servo-Tek Products Co., Inc., 1086 Goffe Rd., Hawthorne, N. J. 9.
SORENSEN & CO., INC., Richards Ave., Norwalk, Conn. 8. ADV. PG. 151-154.
Southern Instruments Ltd., Computer Div., Frimley Rd., Camberley, Surrey. 1.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. 1. ADV. PG. 294, 295.
Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. 10.
Stelma, Inc., 190 Henry St., Stamford, Conn. 5.
Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y. 1-2-3-4-12.
Tally Register Co., 5300 14th N. W., Seattle, Wash. 1.
Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y. 5-10a.
TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. 8. ADV. PG. 661.
Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J. 8.
Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y. 13.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill. 8.

TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. 5. ADV. PG. 468.
UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRANSISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. 8. ADV. PG. 548.
United Electrodynamics Div., United Geophysical Co., Inc., 1200 S. Marengo, Pasadena, Calif. 4.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. 8-9. ADV. PG. 564.
VIBRATION RESEARCH LABS., INC., 97 Lake Ave., Tuckahoe, N. Y. 10. ADV. PG. 621.
Videon Electronic Corp., 902 E. Michigan St., Indianapolis 2, Ind. 13.
WacLine Inc., 35 S. St. Claire St., Dayton 2, Ohio.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y. 1-3-4.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. 1. ADV. PG. 630.
WAUGH ENGINEERING CO., 7842 Burnet Ave., Van Nuys, Calif. 4. ADV. PG. 663.
Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y. 11.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif. 8-9.
Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo. 10.
Wincharger Corp., E. 7th & Division Sts., Sioux City, Iowa. 9.
World Radio Laboratories, Inc., 3415 W. Broadway, Council Bluffs, Iowa. 6.

COOKERS—Electronic

General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.

COOLERS—Blower or Fan

COOLING UNITS—Blower

SEE BLOWERS

TUBE COOLING UNITS

CORD SETS

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
Apex Wire & Cable Corp., 237 37th St., Brooklyn 32, N. Y.
Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
B & M Electric Co., 838 Fourth Ave., Brooklyn 32, N. Y.
Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
BIRNBACH RADIO CORP., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Cords Ltd., Div. of The Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 20.
Decatut Electronics Industries Corp., 203 Orinco Drive, Brightwater, N. Y.
Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S. Long Island City, N. Y.
Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
Electronic Products Co., 322 State St., Santa Barbara, Calif.
Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT
TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
General Electric Co., Construction Materials Div., 128 Boston Ave., Bridgeport 2, Conn.
General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
Irwin Products, 6312 N. Artesian Ave., Chicago 45, Ill.
Miller Electric Co., 120 Main St., Pawtucket, R. I.
Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
Mutron Corp., 125 Perkins Ave., Brockton, Mass.
National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.
Plastics Mold & Engineering Co., 157 Clifford St., Providence 3, R. I.
Plastic Wire & Cable Corp., Jewett City, Conn.
POMONA ELECTRONICS CO., INC., 1126 W. Fifth Ave., Pomona, Calif. ADV. PG. 314.
Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topfield, Mass.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
Royal Electric Corp., Pawtucket, R. I.

Rye Sound Corp., 21 Rye Rd., N. Y.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Superior Insulated Wire Co., Route 9W, West Haverstraw, N. Y.
Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.
Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
Whitaker Cable Corp., Kansas City 16, Mo.
Witelrad Electrical Mfg., Inc., 76 Pulaski St., Stamford, Conn.

CORDS—Dial Cords & Cables

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
GUEBROD BROS. SILK CO., INC., ELECTRONICS DIV., 225 W. 34th St., New York 1, N. Y. ADV. PG. 318.
Heminway & Bartlett Mfg. Co., 500 Fifth Ave., New York 36, N. Y.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
Mutron Corp., 125 Perkins Ave., Brockton, Mass.
Newcomb Spring Corp., The, 177 E. Hawthorne Ave., Valley Stream, N. Y.
New England Electrical Works, Inc., Lisbon, N. H.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
Whitney Blake Co., New Haven 14, Conn.

CORDS—Lacing

BENTLEY-HARRIS MFG., CO., Conshohocken 13, Pa. ADV. PG. 523.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
GUEBROD BROS. SILK CO., ELECTRONICS DIV., 225 W. 34th St., New York 1, N. Y. ADV. PG. 318.
Heminway & Bartlett Mfg. Co., 500 Fifth Ave., New York 36, N. Y.
Mitchell-Rand Insulation Co., Inc., 51 Murray St. New York 7, N. Y.
NARROW FABRIC CO., THE, Reading, Pa. ADV. PG. 655.
Owens-Corning Fiberglass Corp., 598 Madison Ave., New York 22, N. Y.
Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
Warren Wire Co., Pownall, Vt.

CORDS—Line

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
ASSOCIATED ENGINEERING CORP., 65 Kent St., Brookline 46, Mass. ADV. PG. 678, 679.
B & M Electric Co., 838 Fourth Ave., Brooklyn 32, N. Y.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Cords Ltd., Div. of The Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 20.
Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza S., Long Island City, N. Y.
Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
Irwin Products, 6312 N. Artesian Ave., Chicago 45, Ill.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
Miller Electric Co., 120 Main St., Pawtucket, R. I.
Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
Plastic Wire & Cable Corp., Jewett City, Conn.
Royal Electric Corp., Pawtucket, R. I.
Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.
Superior Insulated Wire Co., Route 9W, West Haverstraw, N. Y.
Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
Whitney Blake Co., New Haven 14, Conn.
Witelrad Electrical Mfg. Co., 76 Pulaski St., Stamford, Conn.

CORDS—Line Resistance

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.
Witelrad Electrical Mfg. Co., 76 Pulaski St., Stamford, Conn.

CORDS—Patch

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
ASSOCIATED ENGINEERING CORP., 65 Kent St., Brookline 46, Mass. ADV. PG. 678, 679.
Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Decatur Electronics Industries Corp., 203 Orinco Drive, Brightwater, N. Y.
Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
Miller Electric Co., 120 Main St., Pawtucket, R. I.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
North Electric Co., 553 S. Market St., Galion, Ohio.
POMONA ELECTRONICS CO., INC., 1126 W. Fifth Ave., Pomona, Calif. ADV. PG. 314.
Robco Mfg. Co., 225 W. Main St., Patchogue, N. Y.
Roffan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
Trimm, Inc., 400 W. Lake St., Libertyville, Ill.

CORDS—Retractable

Cords Ltd., Div. of The Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
Killed Kords, Inc., Box K, New Haven 14, Conn.
Plastic Wire & Cable Corp., Jewett City, Conn.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.

CORES—C Type

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 322, 323.
Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
Crowley Div. of Aerovox Corp., 1 Central Ave., West Orange, N. J.
Cybergor, Inc., Electronics, 1705 W. 135th St., Gardena, Calif.
Ferricore, Inc., 303 Railroad Place, Orange, N. J.
GENERAL ELECTRIC CO., SPECIALTY ELECTRONIC COMPONENTS DEPT., W. Genesee St., Auburn, N. Y. ADV. PG. 18.
INDIANA STEEL PRODUCTS CO., Valparaiso, Ind. ADV. PG. 20.
MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. ADV. PG. 527.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
THOMAS & SKINNER INC., 1122 E. 23rd St., Indianapolis 5, Ind. ADV. PG. 625.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

CORES—Ceramic

AMERICAN FELDMUEHLE CORP., 11 W. 42nd St., New York 36, N. Y. ADV. PG. 457.

AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
Dilectron Div. of The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif.
DuCo Ceramics Co., Box 587, Butler 8, Pa.
Electrical Refractories Co., 50 Clark St., East Palestine, Ohio.
Ferricore, Inc., 303 Railroad Place, Orange, N. J.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
Insolantite Mfg. Corp., Stirling, N. J.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., Le Roy, N. Y. ADV. PG. 276, 277.
Maryland Lava Co., Ceramic Dept., Bel Air, Md.
Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249.
Star Porcelain Co., The, 61 Muirhead Ave., Trenton 9, N. J.
Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 108, 109.
SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 588.
Thermo Materials, Inc., 4040 Campbell Ave., Menlo Park, Calif.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
Yale & Towne Mfg. Co., Powdered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.

CORES—Cut

See CORES—C Type

CORES—E Type

CORES—U Type

CORES—E Type

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 322, 323.
Crowley Div. of Aerovox Corp., 1 Central Ave., West Orange, N. J.
Ferricore, Inc., 303 Railroad Place, Orange, N. J.
MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. ADV. PG. 527.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 100.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

CORES—Ferrite

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
Collins Radio Co., Cedar Rapids, Iowa.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
Crowley Div. of Aerovox Corp., 1 Central Ave., West Orange, N. J.
Cybergor, Inc., Electronics, 1705 W. 135th St., Gardena, Calif.
Dilectron Div. of The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif.
Fair-Rite Products Corp., Wallkill, N. Y.
Ferricore, Inc., 303 Railroad Place, Orange, N. J.
Ferroxcube Corp. of America, 125 E. Bridge St., Saugerties, N. Y.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
GENERAL ELECTRIC CO., SPECIALTY ELECTRONIC COMPONENTS DEPT., W. Genesee St., Auburn, N. Y. ADV. PG. 18.
Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
MAGNETIC CORE CORP., 199 Main St., Ossining, N. Y. ADV. PG. 650.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 100.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Stackpole Carbon Co., St. Marys, Pa.
Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
Thermo Materials, Inc., 4040 Campbell Ave., Menlo Park, Calif.
Yale & Towne Mfg. Co., Powdered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.

CORES—High Permeability Magnetic

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 322, 323.
 Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia 23 Pa.
CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 626.
 Cybergor, Inc., Electronics, 1705 W. 135th St., Gradena, Calif.
 Dilectron Div. of The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif.
 G-L Electronics Co., Inc., 2921 Admiral Wilson Blvd., Camden 5, N. J.
MAGNETIC CORE CORP., 199 Main St., Ossining, N. Y. ADV. PG. 650.
MAGNETIC METALS CO., Hayes Ave. at 21st St., Camden, N. J. ADV. PG. 544.
MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 161-163.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 100.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
 Pyroferic Co., Inc., 621 E. 216th St., New York 67, N. Y.
 Stackpole Carbon Co., St. Marys, Pa.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
THOMAS & SKINNER INC., 1122 E. 23rd St., Indianapolis 5, Ind. ADV. PG. 625.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

CORES—Iron

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Crowley Div. of Aerovox Corp., 1 Central Ave., West Orange, N. J.
CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 626.
 Cybergor, Inc., Electronics, 1705 W. 135th St., Gradena, Calif.
MAGNETIC CORE CORP., 199 Main St., Ossining, N. Y. ADV. PG. 650.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 100.
 Pyroferic Co., Inc., 621 E. 216th St., New York 67, N. Y.
 Research Development Manufacture, Inc., 429 E. Collom St., Philadelphia 44, Pa.
THOMAS & SKINNER, INC., 1122 E. 23rd St., Indianapolis 5, Ind. ADV. PG. 625.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

CORES—Powdered

ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 322, 323.
 Crowley Div. of Aerovox Corp., 1 Central Ave., West Orange, N. J.
CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 626.
 Double "E" Products Co., 216 Standard St., El Segundo, Calif.
 Laboratoire Industriel de Physique Appliquee, 67 Rue M.A.-Colombier, Bagnolet (Seine) France.
MAGNETIC CORE CORP., 199 Main St., Ossining, N. Y. ADV. PG. 650.
MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 161-163.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 100.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
 Pyroferic Co., Inc., 621 E. 216th St., New York 67, N. Y.
 Quality Components, Inc., St. Marys, Pa.
RADIO CORES, INC., 9540 Tulley Ave., Oak Lawn, Ill. ADV. PG. 617.
 Stackpole Carbon Co., St. Marys, Pa.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
VARI-L CO., INC., P. O. Box 1433, Stamford, Conn. ADV. PG. 608.
 Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J.

CORES—Slug Tuning Units

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 322, 323.
 Crowley Div. of Aerovox Corp., 1 Central Ave., West Orange, N. J.
CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 626.
 GRIES REPRODUCER CORP., 15 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
MAGNETIC CORE CORP., 199 Main St., Ossining, N. Y. ADV. PG. 650.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 100.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
 Pyroferic Co., Inc., 621 E. 216th St., New York 67, N. Y.
 Quality Components, Inc., St. Marys, Pa.

RADIO CORES INC., 9540 Tulley Ave., Oak Lawn, Ill. ADV. PG. 617.
 Stackpole Carbon Co., St. Marys, Pa.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.

CORES—Tape Wound

ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 322, 323.
 Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia, Pa.
 Cybergor, Inc., Electronics, 1705 W. 135th St., Gradena, Calif.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 G-L Electronics Co., Inc., 2921 Admiral Wilson Blvd., Camden 5, N. J.
INDIANA STEEL PRODUCTS CO., Valparaiso, Ind. ADV. PG. 20.
MAGNETIC METALS CO., Hayes Ave. at 21st St., Camden, N. J. ADV. PG. 544.
MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 161-163.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
THOMAS & SKINNER INC., 1122 E. 23rd St., Indianapolis 5, Ind. ADV. PG. 625.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

CORES—Toroidal

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALDEN PRODUCTS CO., 112 N Main St., Brockton 64, Mass. ADV. PG. 567.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
 American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 322, 323.
 Collins Radio Co., Cedar Rapids, Iowa.
 Crowley Div. of Aerovox Corp., 1 Central Ave., West Orange, N. J.
CUSTOM COMPONENTS, INC., Cladwell, N. J. ADV. PG. 626.
 Cybergor, Inc., Electronics, 1705 W. 135th St., Gradena, Calif.
 Double "E" Products Co., 216 Standard St., El Segundo, Calif.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
 G-L Electronics Co., Inc., 2921 Admiral Wilson Blvd., Camden 5, N. J.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
MAGNETIC CORE CORP., 199 Main St., Ossining, N. Y. ADV. PG. 650.
MAGNETIC METALS CO., Hayes Ave. at 21st St., Camden, N. J. ADV. PG. 544.
MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 161-163.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 100.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Quality Components, Inc., St. Marys, Pa.
RADIO CORES, INC., 9540 Tulley Ave., Oak Lawn, Ill. ADV. PG. 617.
 Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
 Stackpole Carbon Co., St. Marys, Pa.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
THOMAS & SKINNER, INC., 1122 E. 23rd St., Indianapolis 5, Ind. ADV. PG. 625.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Yale & Towne Mfg. Co., Powdered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.

CORES—U TypeSee **CORES—C Type****COUNTERS, ELECTRON AND NUCLEAR**See **COUNTERS—Geiger****COUNTERS—Electronic**

Acme Teletronix Div. of NEA Service, Inc., West Third & Lakeside, Cleveland 13, Ohio.
ADVANCE ELECTRONICS LAB., INC., 249-259 Terhune Ave., Passaic, N. J. ADV. PG. 420.
 Airmec Ltd., High Wycombe, Buckinghamshire, England.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
 American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.

AMERICAN TRADAIR CORP., SUB. OF EKCO ELECTRONICS, LTD., 34-01 30th St., Long Island City 6, N. Y. ADV. PG. 693.
 Anatron Div. of Endevco Corp., 165 E. California St., Pasadena, Calif.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
BOESCH MFG. CO., Danbury, Conn. ADV. PG. 520.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
 Bruel & Kjaer, Naerum, Denmark.
 Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia, Pa.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Control Devices, Inc., 8299 E. Nine Mile Rd., Van Dyke, Mich.
 Cyclotron Specialties Co., Moraga 8, Calif.
 Deitz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.
 Devtron Engineering, 1 Winslow St., Redwood City, Calif.
 Dubrow Development Co., 235-B Penn St., Burlington, N. J.
 Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
 Durant Mfg. Co., 1912-A N. Buffum St., Milwaukee 1, Wis.
 Dynac, Inc., 395 Page Mill Rd., Palo Alto, Calif.
 Dynapar Corp., 5150 Church St., Skokie, Ill.
 Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y.
 Electrical Service Co., 1271 Mission St., San Francisco, Calif.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 Electro Instruments, Inc., 3794 Rosencrans, San Diego 10, Calif.
ELECTRO-PULSE, INC., 11861 Teale St., Culver City, Calif. ADV. PG. 651.
 Elesta Ltd., Bad Ragaz, Switzerland.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
 First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
 Haledy Electronics Co., 57 William St., New York 5, N. Y.
HAMNER ELECTRONICS CO., INC., Box 531, Princeton, N. J. ADV. PG. 671.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
 Hupp Instrumentation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
 I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.
 Industrial Electronic Controls Co., 2271 E. 14th St., Brooklyn 29, N. Y.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
 Lumenite Electric Co., 407 S. Dearborn St., Chicago 5, Ill.
 Machinery Electrification, Inc., Northboro, Mass.
 Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.
 Magnetics Research Co., Cor. Grove St. & E. Post Rd., White Plains, N. Y.
 Magtrol, Inc., 38 Virginia Place, Buffalo, N. Y.
 May Engineering Corp., 6055 Lankershim Blvd., North Hollywood, Calif.
 Measurement Engineering, Ltd., Arncliffe, Ontario, Canada.
 Mueller Laboratory, 1052 N. Allen, Pasadena, Calif.
 Nader Mfg. Co., 2661 Myrtle Ave., Monrovia, Calif.
NAVIGATION COMPUTER CORP., 1621 Snyder Ave., Philadelphia 45, Pa. ADV. PG. 585.
NORTHEASTERN ENGINEERING, INC., Manchester, N. H. ADV. PG. 518, 519.
 Nuclear Measurements Corp., 2460 N. Arlington Ave., Indianapolis 5, Ind.
 Nucleonic Company of America, 196 DeGraw St., Brooklyn 31, N. Y.
 Pantek Co., Box 212, El Segundo, Calif.
 Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
 Post Machinery Co., Electronic Products Div., 140 Elliott St., Beverly, Mass.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Ransom Research, P. O. Box 382, San Pedro, Calif.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 Spencer Mfg. Co., 3253 N. Cicero Ave., Chicago 41, Ill.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRANSISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. ADV. PG. 548.
VICTOR ADDING MACHINE CO., ELECTRONICS SALES DIV., 3900 N. Rockwell St., Chicago 18, Ill. ADV. PG. 565.
 Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.

COUNTERS—Frequency

ADVANCE ELECTRONICS LAB., INC., 249-259 Terhune Ave., Passaic, N. J. ADV. PG. 420.
 Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
 Airmec, Ltd., High Wycombe, Buckinghamshire, England.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Devtron Engineering, 1 Winslow St., Redwood City, Calif.
 Dubrow Development Co., 235-B Penn St., Burlington, N. J.
 Dynac, Inc., 395 Page Mill Rd., Palo Alto, Calif.
 Dynapar Corp., 5150 Church St., Skokie, Ill.
 Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif.
ELECTRO-PULSE, INC., 11861 Teale St., Culver City, Calif. ADV. PG. 651.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
 Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
 I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
 Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.
 Magnetics Research Co., Cor. Grove St. & E. Post Rd., White Plains, N. Y.
NORTHEASTERN ENGINEERING, INC., Manchester, N. H. ADV. PG. 518, 519.
 Pantek Co., Box 212, El Segundo, Calif.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. 372, 373.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Ransom Research, P. O. Box 382, San Pedro, Calif.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.

COUNTERS—Geiger

Airmec, Ltd., High Wycombe, Buckinghamshire, England.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Atomic Research Corp., P. O. Box 205, Colorado Springs, Colo.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Bruef & Kjaer, Naerum, Denmark.
 Cyclotron Specialties Co., Moraga 8, Calif.

Douglas Radio Labs., 176 Norfolk Ave., Boston 19, Mass.
 Eberline Instrument Division, P. O. Box 279, Santa Fe, N. M.
 Electronic Products Co., 111 E. Third St., Mt. Vernon, N. Y.
 Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
 Hallamere Electronics Co., 8352 Brookhurst Ave., Anaheim, Calif.
 Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles 7, Calif.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Landsverk Electrometer Co., 550 W. Garfield Ave., Glendale 4, Calif.
 Leighton Labs., H. W., Sunset Lane & York Rd., Hatboro, Pa.
 Measurement Engineering, Ltd., Armprior, Ontario, Canada.
 Menlo Research Laboratory, 538 Phelan Ave., San Jose, Calif.
 Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo.
 NRDI Instrument Co., 6425 Etzel Ave., St. Louis 14, Mo.
 Nuclear-Chicago Corp., 223 W. Erie St., Chicago 10, Ill.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Nuclear Development Lab., Box 7034, Kansas City, Mo.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Nuclear Measurements Corp., 2460 N. Arlington Ave., Indianapolis 5, Ind.
 Nucleonic Company of America, 196 De Graw St., Brooklyn 31, N. Y.
 Omco, U. S. 93 & Las Palomas St., Kingman, Ariz.
 Pacific Transducer EBG Corp., 11921 W. Pico Blvd., Los Angeles 64, Calif.
 Philips Electronics, Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
 Precision Radiation Instruments, Inc., 4223 W. Jefferson Blvd., Los Angeles 16, Calif.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
 Radioactive Products, Inc., 2421 Wolcott, Ferndale, Mich.
 Reed-Curtis Nuclear Industries, Inc., 9459 N. Jefferson Blvd., Culver City, Calif.
 Research Mfg. Co., 2115 W. 17th St., Long Beach, Calif.
 Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
 Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.
 Tracerlab, Inc., 1601 Trapelo Rd., Waltham 54, Mass.
 Twentieth Century Electronics, Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRANSISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. ADV. PG. 548.
VICTOREEN INSTRUMENT CO., COMPONENTS DIV., 5806 Hough Ave., Cleveland 3, Ohio. ADV. PG. 366.
 Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.
 Western Radiation Lab., 1107 W. 24th St., Los Angeles 7, Calif.
 Wood Counter Laboratory, N. 5491 Blackstone, Chicago 37, Ill.

COUNTERS—Mechanical

AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 580.
 Anatron Div. of Endevco Corp., 165 E. California St., Pasadena, Calif.
 Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
BOWMAR INSTRUMENT CORP., 2415 Pennsylvania St., Fort Wayne, Ind. ADV. PG. 538, 539.
 Camera Mart Inc., 1845 Broadway, New York 23, N. Y.
 Counting Instruments, Ltd., 5, Elstree Way, Boreham Wood, Hertfordshire, England.
 Cyclotron Specialties Co., Moraga 8, Calif.
 Durant Mfg. Co., 1912-A N. Buffum St., Milwaukee 1, Wis.
 Exact Engineering & Mfg. Co., P. O. Box 668, Ocean-side, Calif.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Haledy Electronics Co., 57 William St., New York 5, N. Y.
 Hycon Electronics, Inc., P. O. Bin D, Pasadena, Calif.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
 Magnuson Engineers, Inc., 509 Emory St., San Jose 10, Calif.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Production Instrument Co., 710 W. Jackson Blvd., Chicago 6, Ill.

Streeter-Amet Co., Grayslake, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
 Tracerlab, Inc., 1601 Trapelo Rd., Waltham 54, Mass.
 Veeder-Root, Inc., Hartford 2, Conn.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

COUNTERS—Photoelectric

Airmec, Ltd., High Wycombe, Buckinghamshire, England.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Autotron, Inc., 3629 N. Vermilion St., Danville, Ill.
 Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Cinema-Television, Ltd., Worsley Bridge Rd., London S.E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
COOK CO., FRANK R., 36 S. Santa Fe Drive, Denver 23, Colo. ADV. PG. 480.
 Durant Mfg. Co., 1912-A N. Buffum St., Milwaukee 1, Wis.
 Electrical Service Co., 1271 Mission St., San Francisco, Calif.
 Elesta Ltd., Bad Ragaz, Switzerland.
 Erco Engineering Corp., Addison, Ill.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
 Haledy Electronics Co., 57 William St., New York 5, N. Y.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Machinery Electrification Inc., Northboro, Mass.
 Magnuson Engineers, Inc., 509 Emory St., San Jose 10, Calif.
 Optron Corp., 3526 State St., Santa Barbara, Calif.
 Pantek Co., Box 212, El Segundo, Calif.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photoswitch Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Production Instrument Co., 710 W. Jackson Blvd., Chicago 6, Ill.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
 Rockwell Engineering Co., 2125 E. 45th St., Indianapolis 5, Ind.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
 Veeder-Root, Inc., Hartford 2, Conn.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.

COUNTERS—Proportional

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
BOWMAR INSTRUMENT CORP., 2415 Pennsylvania St., Fort Wayne, Ind. ADV. PG. 538, 539.
 Devtron Engineering, 1 Winslow St., Redwood City, Calif.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
 NRDI Instrument Co., 6425 Etzel Ave., St. Louis 14, Mo.
 Nuclear-Chicago Corp., 223 W. Erie St., Chicago 10, Ill.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Nuclear Measurements Corp., 2460 N. Arlington Ave., Indianapolis 5, Ind.
 Nucleonic Company of America, 196 DeGraw St., Brooklyn 31, N. Y.
 Pantek Co., Box 212, El Segundo, Calif.
 Philips Electronics, Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Production Instrument Co., 710 W. Jackson Blvd., Chicago 6, Ill.
 Ransom Research, P. O. Box 382, San Pedro, Calif.
 Radioactive Products, Inc., 2421 Wolcott, Ferndale, Mich.
 Reed-Curtis Nuclear Industries, Inc., 9459 N. Jefferson Blvd., Culver City, Calif.
 Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.

Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
Tracerlab, Inc., 1601 Trapelo Rd., Waltham 54, Mass.
Twentieth Century Electronics, Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
Wood Counter Laboratory, N., 5491 Blackstone, Chicago 37, Ill.
X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

COUNTERS—Revolution

Airmec Ltd., High Wycombe, Buckinghamshire, England.
Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
BOWMAR INSTRUMENT CORP., 2415 Pennsylvania St., Fort Wayne, Ind. ADV. PG. 538, 539.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
Counting Instruments, Ltd., 5, Elstree Way, Boreham Wood, Hertfordshire, England.
Durant Mfg. Co., 1912-A N. Buffum St., Milwaukee 1, Wis.
Eagle Signal Corp., Moline, Ill.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
Helipot Corp., Newport Beach, Calif.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
Hupp Instru/Mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
INDUSTRIAL WINDING MACHINERY CO., 120 Wall St., New York 5, N. Y. ADV. PG. 651.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
Machinery Electrification, Inc., Northboro, Mass.
North Electric Co., 553 S. Market St., Galion, Ohio.
Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
Production Instrument Co., 710 W. Jackson Blvd., Chicago 6, Ill.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
Streeter-Amet Co., Grayslake, Ill.
Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
Veeder-Root, Inc., Hartford 2, Conn.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.

COUNTING AND SORTING

See **CONTROLS—Counting & Sorting**

COUPLERS—Directional**COUPLINGS—Microwave**

See **MICROWAVE ACCESSORIES**

COUPLINGS, SHAFT—Reducers & Extensions

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
Amatom Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
Koppers Co., Inc., Koppers Bldg., Pittsburgh 19, Pa.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 8, Calif.
P I C Design Corp., 477 Atlantic Ave., East Rockaway, N. Y.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.

COUPLINGS, SHAFT—Rigid & Flexible

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
Amatom Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
Belock Instrument Corp., 111-01 14th Ave., College Point 56, N. Y.

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
Cardwell Co., Allen D., The, 97 Whiting St., Plainview, Conn.
Clifford Mfg. Co., Grove St., Waltham, Mass.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Ford Instrument Co., Div. of Sperry Rand Corp., 31-10 Thomson Ave., Long Island City 1, N. Y.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
Goe Engineering Co., 219 S. Mednik Ave., Los Angeles 22, Calif.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
Isolantite Mfg. Corp., Stirling, N. J.
Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
KUPFRIAN MFG. CORP., 398 State St., Binghamton, N. Y. ADV. PG. 684.
Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
Lord Mfg. Co., 1635 W. 12th St., Erie, Pa.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 8, Calif.
Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
P I C Design Corp., 477 Atlantic Ave., East Rockaway, N. Y.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
Reflectone Corp., Post Rd & Myano Lane, Stamford, Conn.
RENNBRANDT, INC., 98 Kirkland St., Cambridge 38, Mass. ADV. PG. 624.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
STEWART CORP., F. W., 4311 Ravenswood Ave., Chicago 13, Ill. ADV. PG. 653.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.

CROSSES—Microwave

See **MICROWAVE ACCESSORIES**

HYBRID JUNCTIONS—Microwave**CRYSTAL ANALYSIS EQUIPMENT**

RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 555.

CRYSTAL CARTRIDGES

American Microphone Co., 270 S. Fair Oaks Ave., Pasadena 1, Calif.
Astatic Corporation, The, Conneaut, Ohio.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Duotone Co., Inc., Keyport, N. J.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
Lesca, Via Bergamo 21, Milan, Italy.

CRYSTAL DETECTORS

See **DETECTORS—Crystal**

CRYSTAL MOUNTS & MIXERS

See **MICROWAVE ACCESSORIES**

CRYSTALS—Barium Titanate-Transducer

Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 605.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
King Laboratory, Inc., 2645 S. Second W., Salt Lake City 15, Utah.
Lewis Co., Inc., E. B., 11 Bragg St., East Hartford 8, Conn.
Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
Northern Electronic & Vacuum Industries, St. Sauveur des Monts P. Q., P. O. Box 105, Canada.

CRYSTALS—Color TV Frequency Control

See **PARTS for COLOR TV TUBES**

CRYSTALS—Grown, Germanium & Silicon, Uncut

SEMINETALS, INC., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 673.

CRYSTALS—Quartz-Frequency Control

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.
Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
BLILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 178, 179.
Breon Laboratories, 1520 Evergreen Rd., Williamsport, Pa.
BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
C-W Mfg. Co., Box 2065, El Monte, Calif.
CLARK CRYSTAL CO., Farm Rd., Marlboro, Mass. ADV. PG. 512.
Cryo, Inc., 1138 Mission St., South Pasadena, Calif.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Dallons Laboratories, Inc., 5066 Santa Monica Blvd., Los Angeles 29, Calif.
Eidson Electronic Co., 1902 N. Third St., Temple, Texas.
Hill Electronic Engineering & Mfg. Co., Inc., New Kingstown, Pa.
Hudson American Corp., 25 W. 43rd St., New York 36, N. Y.
HUNT CORP., THE, 453 Lincoln St., Carlisle, Pa. ADV. PG. 532.
Hupp Electronics Co., 265 E. Pomfret St., Carlisle, Pa.
International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla.
KEYSTONE ELECTRONICS CO., 65 Seventh Ave., Newark, N. J. ADV. PG. 614.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 521.
Lewis Co., Inc., E. B., 11 Bragg St., East Hartford 8, Conn.
MCCOY ELECTRONICS CO., Mount Holly Springs, Pa. ADV. PG. 286.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
MIDLAND MFG. CO., INC., 3155 Fiberglass Rd., Kansas City 15, Kansas. ADV. PG. 367.
Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
Monitor Products Co., 815 Fremont Ave., South Pasadena, Calif.
Nebel Laboratory, R. E., 1634 E. 12th St., Brooklyn 29, N. Y.
NORTHERN ENGINEERING LABORATORIES, INC., 372 Wilmot Ave., Burlington, Wis. ADV. PG. 668.
Pan-Electronics Corp., Box 404, Griffin, Ga.
Peterson Radio Co., 2800 West Broadway, Council Bluffs, Iowa.
Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
Precision Piezo Service, 427 Mayflower St., Baton Rouge, La.
Premier Research Laboratories, Inc., 83 Seventh Ave., New York 11, N. Y.
Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.
SCIENTIFIC RADIO PRODUCTS, INC., 215 S. 11th, Omaha, Neb. ADV. PG. 657.
Scientific Radio Service, 4301 Sheridan St., University Park, Md.
Sherold Crystals, Inc., 1510 McGee St., Kansas City, Mo.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
STANDARD CRYSTAL CO., 1714 Locust St., Kansas City 8, Mo. ADV. PG. 558.
Standard Telephones & Cables Ltd., Connaught House, Aldwych, London W.C. 2, England.
VALPEY CRYSTAL CORP., 1244 Highland St., Holliston, Mass. ADV. PG. 561.
Wright Electronics, Inc., 1519 McGee St., Kansas City 7, Mo.

CRYSTALS—Quartz-Transducer

ANDERSEN LABORATORIES, INC., 39 Talcott Rd., West Hartford 10, Conn. ADV. PG. 486.
BLILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 178, 179.
Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 355 N. Newport Blvd., Newport Beach, Calif.
CLARK CRYSTAL CO., Farm Rd., Marlboro, Mass. ADV. PG. 512.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Dallons Laboratories, Inc., 5066 Santa Monica Blvd., Los Angeles 29, Calif.
Hoffman Co., P. R., Carlisle, Pa.
Hupp Electronics Co., 265 E. Pomfret St., Carlisle, Pa.
Kistler Instrument Corp., 15 Webster St., North Tonawanda, N. Y.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 521.
Lewis Co., Inc., E. B., 11 Bragg St., East Hartford 8, Conn.
MIDLAND MFG. CO., INC., 3155 Fiberglass Rd., Kansas City 16, Kansas. ADV. PG. 367.
Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
Monitor Products Co., 815 Fremont Ave., South Pasadena, Calif.
NORTHERN ENGINEERING LABORATORIES, INC., 372 Wilmot Ave., Burlington, Wis. ADV. PG. 668.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
Pan-Electronics Corp., Box 404, Griffin, Ga.
Piezo Products Co., Whitney St., Sherborn, Mass.
Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.

Premier Research Laboratories, Inc., 83 Seventh Ave., New York 11, N. Y.
 Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.
 Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
STANDARD CRYSTAL CO., 1714 Locust St., Kansas City 8, Mo. ADV. PG. 558.
 Sturup, Inc., 50 Silver St., Middletown, Conn.
VALPEY CRYSTAL CORP., 1244 Highland St., Holliston, Mass. ADV. PG. 561.
 Wright Electronics Inc., 1519 McGee St., Kansas City 8, Mo.

CRYSTALS—Raw

Diamond Drill Carbon Co., The, 244 Madison Ave., New York 16, N. Y.
 Hoffman Co., P. R., Carlisle, Pa.
KEYSTONE ELECTRONICS CO., 65 Seventh Ave., Newark, N. J. ADV. PG. 614.
 Nebel Laboratory, R. E., 1624 E. 12th St., Brooklyn 29, N. Y.
 Pan-Electronics Corp., Box 404, Griffin, Ga.
PAN AMERICAN TRADE DEVELOPMENT CORP., 2 Park Ave., New York 16, N. Y. ADV. PG. 624.
SCIENTIFIC RADIO PRODUCTS, INC., 215 S. 11th, Omaha, Neb. ADV. PG. 657.
 Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
STANDARD CRYSTAL CO., 1714 Locust St., Kansas City 8, Mo. ADV. PG. 558.

CRYSTALS—Rochelle Salts, Transducer

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.

CRYSTALS—Sapphire

LINDE AIR PRODUCTS CO., A DIV. OF UNION CARBIDE & CARBON CORP., 30 E. 42nd St., New York 17, N. Y. ADV. PG. 636.

CRYSTALS—Sapphire, Synthetic

LINDE AIR PRODUCTS CO., A DIV. OF UNION CARBIDE & CARBON CORP., 30 E. 42nd St., New York 17, N. Y. ADV. PG. 636.

CRYSTALS—Scintillation Counter

AMERICAN TRADAIR CORP., SUB. OF EKO ELECTRONICS, LTD., 34-01 30th St., Long Island City 6, N. Y. ADV. PG. 693.
 Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 Jonas Co., F., 55 W. 42nd St., New York 36, N. Y.
 Levinthal Electronic Products, Inc., 3180 Hanover St., Stanford Industrial Park, Palo Alto, Calif.
 Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo.
 Northern Electronic & Vacuum Industries, St. Sauveur des Monts, P. Q., P. O. Box 105M, Canada.
 Nuclear-Chicago Corp., 223 W. Erie St., Chicago 10, Ill.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Nuclear Research Corp., Southampton, Pa.
 Tracerlab, Inc., 1601 Trapelo Rd., Waltham 54, Mass.

CRYSTALS—Tourmaline-Frequency Control

CLARK CRYSTAL CO., Farm Rd., Marlboro, Mass. ADV. PG. 512.
 Hupp Electronics Co., 265 E. Pomfret St., Carlisle, Pa.
 Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
VALPEY CRYSTAL CORP., 1244 Highland St., Holliston, Mass. ADV. PG. 561.

CRYSTALS—Unfinished

BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
CLARK CRYSTAL CO., Farm Rd., Marlboro, Mass. ADV. PG. 512.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Eidson Electronic Co., 1902 N. Third St., Temple, Texas.
 Hill Electronic Engineering & Mfg. Co., Inc., New Kingstown, Pa.
 Hoffman Co., P. R., Carlisle, Pa.
 Hupp Electronics Co., 265 E. Pomfret St., Carlisle, Pa.
KEYSTONE ELECTRONICS CO., 65 Seventh Ave., Newark N. J. ADV. PG. 614.
 Lewis Co., Inc., E. B., 11 Bragg St., East Hartford 8, Conn.
McGOY ELECTRONICS CO., Mount Holy Springs, Pa. ADV. PG. 286.
 Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
 Monitor Products Co., 815 Fremont Ave., South Pasadena, Calif.
 Nebel Laboratory, R. E., 1634 E. 12th St., Brooklyn 29, N. Y.
 Pan-Electronics Corp., Box 404, Griffin, Ga.
 Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
 Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.
SCIENTIFIC RADIO PRODUCTS CO., INC., 215 S. 11th, Omaha, Neb. ADV. PG. 657.
STANDARD CRYSTAL CO., 1714 Locust St., Kansas City 8, Mo. ADV. PG. 558.

VALPEY CRYSTAL CORP., 1244 Highland St., Holliston, Mass. ADV. PG. 561.
 Wright Electronics Inc., 1519 McGee St., Kansas City 7, Mo.

CYLINDERS—Air

Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.
 Hydraulic Press Mfg. Co., A Div. of Koehring Co., Mt. Gilead, Ohio.
 Kidde & Co., Inc., Walter, 477 Main St., Belleville 9, N. J.

DATA RECORDING EQUIPMENT

Acme Teletronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 3, Ohio.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
 Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
 Alwac Corp., 13041 S. Cerise Ave., Hawthorne, Calif.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
AMPEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 285.
 Austin Co., The, Special Devices Div., 76 Ninth Ave., New York 11, N. Y.
 Automation Management, Inc., Westboro, Mass.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Barnes Development Co., 213 W. Baltimore Pike, Lansdowne, Pa.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Benson-Lehner Corp., 11930 W. Olympic Blvd., Los Angeles 64, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Berlant Concertone-Audio Div. of American Electronics Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
 Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
 Coleman Engineering Co., Inc., 6040 W. Jefferson Blvd., Los Angeles 16, Calif.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Corbett Science Laboratories, F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
 Datascan Inc., 48 Notch Rd., Little Falls, N. J.
DAVIES LABORATORIES DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 10721 Hanna St., Beltsville, Md. ADV. PG. 446.
 Delaware Products Co., 300 Broadway, Camden 3, N. J.
 Edin Co., Inc., 207 Main St., Worcester, Mass.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
 Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif.
ELECTROMATION CO., 1646 Eighteenth St., Santa Monica, Calif. ADV. PG. 692.
 Electronic Associates, Inc., Long Branch, N. J.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Electronic Engineering Co. of California, 1601 E. Chestnut St., Santa Ana, Calif.
 Fairchild Camera & Instrument Corp., Reconnaissance Systems Div., Robbins Lane, Syosset, N. Y.
FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Flight Research, Inc., P. O. Box 1-F, Richmond 1, Va.
 Friden Calculating Machine Co., Inc., 2350 Washington Ave., San Leandro, Calif.
GENERAL ELECTRIC CO., APPARTUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Precision Laboratory, Inc., 63 Bedford Rd., Pleasantville, N. Y.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
 Haller, Raymond & Brown, Inc., State College, Pa.
 Hanson-Gorrill-Brian, Inc., 85 Hazel St., Glen Cove, N. Y.
 Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
HYCON EASTERN, INC., Dept. EBG, 75 Cambridge Parkway, Cambridge, Mass. ADV. PG. 400, 401.

Industrial Electronic Engineers, 3973 Lankershim Blvd., North Hollywood, Calif.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Magnecord, Inc., 1101 S. Kilbourn Ave., Chicago 24, Ill.
 Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
 Maurer, Inc., J. A., 37-01 31st St., Long Island City 1, N. Y.
 Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
 Modac Div. of Airborne Instruments Laboratory, 864 Franklin Ave., Thornwood, N. Y.
NAVIGATION COMPUTER CORP., 1621 Snyder Ave., Philadelphia 45, Pa. ADV. PG. 585.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
 North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Radiation, Inc., Melbourne, Fla.
 Shand and Jurs Co., Sub. of General Precision Equipment Corp., Carleton & Eighth Sts., Berkeley 10, Calif.
 Southern Instruments Ltd., Computer Div., Frimley Rd., Camberley, Surrey.
 Streeter-Amet Co., Grayslake, Ill.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Teller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telecomputing Div. of Telecomputing Corp., 12838 Saticoy St., North Hollywood, Calif.
 Teleregister Co., The, 445 Fairfield Ave., Stamford, Conn.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 468.
 Tracerlab, Inc., 1601 Trapelo Rd., Waltham 54, Mass.
VICTOR ADDING MACHINE CO., ELECTRONICS SALES DIV., 3900 N. Rockwell St., Chicago 18, Ill. ADV. PG. 565.

DECADE BOXES—Capacitance

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Alco Electronics Mfg. Corp., 3 Wolcott Ave., Lawrence, Mass.
 Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
 Electro-Measurements, Inc., 7524 S. W. Macadam, Portland 1, Ore.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
 High Fidelity Products, Box 131, Owensboro, Ky.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Pennsylvania Testing Lab., Inc., Doylestown, Pa.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Precise Development Corp., 2 Nell Court, Oceanside, N. Y.
 Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.
SOUTHERN ELECTRONICS CORP., 150 W. Cypress Ave., Burbank, Calif. ADV. PG. 166.
 Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
 Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

DECADE BOXES—Inductance

Aerovox Corp., Belleville Ave., New Bedford, Mass.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
 Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.
 Coast Coil Co., 5333 W. Washington Blvd., Los Angeles 16, Calif.

Electro-Measurements, Inc., 7524 S. W. Macadam, Portland 1, Ore.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 188.
Muirhead & Co., Ltd., Beckenham, Kent, England.
New York Transformer Co., Inc., Third Ave., Alpha, N. J.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Shasta Div. of Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif.
Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
Torocoil Co., 2615 Bristol Rd., Columbus 21, Ohio.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

DECADE BOXES—Resistance

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
Alco Electronics Mfg. Corp., 3 Wolcott Ave., Lawrence, Mass.
Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.
CINEMA ENGINEERING DIV., AEROVEX CORP., 1100 Chestnut St., Burbank, Calif. ADV. PG. 688.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
Consolidated Resistance Co. of America Inc., 44 Prospect St., Yonkers, N. Y.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
Dubrow Development Co., 235-B Penn St., Burlington, N. J.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
Electro-Measurements, Inc., 7524 S. W. Macadam, Portland 1, Ore.
Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GRAY INSTRUMENT CO., 200 E. Church Lane, Philadelphia 44, Pa. ADV. PG. 643.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
Julle Research Laboratories, 556 W. 168th St., New York 32, N. Y.
Leeds & Northrup Co., 4970 Stanton Ave., Philadelphia 44, Pa.
Marma Electronic Co., 703 Willow St., Chicago 14, Ill.
Miller Research Laboratories, 5529 S. Fifth St., Milwaukee 7, Wis.
Muirhead & Co., Ltd., Beckenham, Kent, England.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
Rubicon Co., Ridge Ave., at 35th St., Philadelphia 29, Pa.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
STITCH CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.
Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

DELCALCOMANIAS

Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
Johnson Research Corp., Bethpage, N. Y.
Meyercord Co., 5323 W. Lake St., Chicago 44, Ill.
NORTH SHORE NAMEPLATE, INC., 214-27 Northern Blvd., Bayside 61, N. Y. ADV. PG. 486.
Topflight Corp., 160 E. Ninth Ave., York, Pa.
Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

DEFLECTION YOKES

See YOKES—Deflection

DEHYDRATORS—Automatic

ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
Communication Products Co., Inc., Marlboro, N. J.
Dielectric Products Engineering Co., Inc., Raymond, Maine.
Kahn and Co., Inc., 541 Windsor St., Hartford 1, Conn.
Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
Pittsburgh Lector-dryer Div. of McGraw-Edison Co., 300 32nd St., Pittsburgh 30, Pa.

DELAY LINE CORES—Metalized

Ceramet Corp., 5905 Broadway, New York 63, N. Y.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.

DELAY LINES—Color TV

See PARTS for COLOR TV TUBES

DELAY LINES—Digital

ADVANCE ELECTRONICS LAB., INC., 249-259 Terhune Ave., Passaic, N. J. ADV. PG. 420.
ALDEN PRODUCTS CO., 112 N. Main St., BROCKTON 64, Mass. ADV. PG. 567.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BREW & CO., INC., RICHARD D., Concord, N. H. ADV. PG. 524.
Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
Burrhoughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia 23, Pa.
COLUMBIA TECHNICAL CORP., 61-02 31 Ave., Woodside 77, N. Y. ADV. PG. 517.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
Datscan Inc., 48 Notch Rd., Little Falls, N. J.
Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
Electronic Computer Div., Underwood Corp., 35-10 36th Ave., Long Island City 6, N. Y.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
Meridian, Inc., 880 Main St., Stamford, Conn.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 522.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. ADV. PG. 630.

DELAY LINES—Distributed-Constant Fixed

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
ADVANCE ELECTRONICS LAB., INC., 249-259 Terhune Ave., Passaic, N. J. ADV. PG. 420.
Aladdin Electronics, A Div. of Aladdin Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
Amplivision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bel-Fuse, Inc., 311 Mountain Rd., Union City, N. J.
BREW & CO., INC., RICHARD D., Concord, N. H. ADV. PG. 524.
Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
Colcraft, Inc., Cary, Ill.
COLUMBIA TECHNICAL CORP., 61-02 31 Ave., Woodside 77, N. Y. ADV. PG. 517.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
Dilectron Div., The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
Essex Electronics, Berkeley Heights, N. J.
Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
GENERAL ELECTRIC CO., SPECIALTY ELECTRONIC COMPONENTS DEPT., W. Genesee St., Auburn, N. Y. ADV. PG. 18.
Gray & Kuhn, Inc., 20 Railroad Ave., Roslyn Heights, N. Y.
Gudeman Co., 340 W. Huron St., Chicago 10, Ill.
Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill.
Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
Helipot Corp., Newport Beach, Calif.
Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
Meridian, Inc., 880 Main St., Stamford, Conn.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Miller Co., J. W., 5917 S. Main St., Los Angeles 1, Calif.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 268.
Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 522.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
TECHNITROL ENGINEERING CO., 1952 E. Allegheny Ave., Philadelphia 34, Pa. ADV. PG. 309.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.

DELAY LINES—Distributed-Constant Variable

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
ADVANCE ELECTRONICS LAB., INC., 249-259 Terhune Ave., Passaic, N. J. ADV. PG. 420.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BREW & CO., INC., RICHARD D., Concord, N. H. ADV. PG. 524.
BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
Cinema-Television, Ltd., Worsley Bridge Rd., London S.E. 26, England.
COLUMBIA TECHNICAL CORP., 61-02 31 Ave., Woodside 77, N. Y. ADV. PG. 517.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Meridian, Inc., 880 Main St., Stamford, Conn.
Miller Co., J. W., 5917 S. Main St., Los Angeles 1, Calif.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 268.
Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

DELAY LINES—Lumped-Constant Fixed

ADVANCE ELECTRONICS LAB., INC., 249-259 Terhune Ave., Passaic, N. J. ADV. PG. 420.
Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BREW & CO., INC., RICHARD D., Concord, N. H. ADV. PG. 524.
Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
Carad Corp., 2850 Bay Rd., Redwood City, Calif.
Colcraft, Inc., Cary, Ill.
Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
Delttime, Inc., 608 Fayette Ave., Mamaroneck, N. Y.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
Double "E" Products Co., 216 Standard St., El Segun, Calif.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
Electronic Computer Div., Underwood Corp., 35-10 36th Ave., Long Island City 6, N. Y.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 233-235.
Essex Electronics, Berkeley Heights, N. J.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., Amity St., Little Falls, N. J.
Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. Y.
Gray & Kuhn, Inc., 20 Railroad Ave., Roslyn Heights, N. Y.
Gudeman Co., 340 W. Huron St., Chicago 10, Ill.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.

Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill.
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 Leonard Electric Products Co., Inc., 67 Thirty-Fourth St., Brooklyn 32, N. Y.
 Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Magnetics Research Co., Cor. Grove St. & E. Post Rd., White Plains, N. Y.
 Meridian, Inc., 880 Main St., Stamford, Conn.
 MICAMOLD ELECTRONICS MFG. CORP., 1087 Flushing Ave., Brooklyn 6, N. Y. ADV. PG. 301.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
 Orbitran Co., Lakeside, Calif.
 ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
 PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 268.
 POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.
 Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
 RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
 SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
 Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicago 6, Mass.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 TECHNITROL ENGINEERING CO., 1952 E. Allegheny Ave., Philadelphia 34, Pa. ADV. PG. 309.
 TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.
 U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
 UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 Valor Electronic Components Co., 5808 Marilyn Ave., Culver City, Calif.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.

DELAY LINES—Lumped-Constant Variable

ADVANCE ELECTRONICS LAB., INC., 249-259 Terhune Ave., Passaic, N. J. ADV. PG. 420.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 BREW & CO., INC., RICHARD D., Concord, N. H. ADV. PG. 524.
 BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
 Central Coil Co., 1720 N. Luetz St., Indianapolis 22, Ind.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
 CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
 DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
 ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
 Electronic Computer Div., Underwood Corp., 35-10 36th Ave., Long Island City 6, N. Y.
 FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 Meridian, Inc., 880 Main St., Stamford, Conn.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 268.
 Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
 RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
 TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.

DELAY LINES—Ultrasonic, Liquid or Solid

ANDERSEN LABORATORIES, INC., 39 Talcott Rd., West Hartford 10, Conn. ADV. PG. 486.
 ARENBERG ULTRASONIC LABORATORY, INC., 94 Green St., Jamaica Plain 30, Mass. ADV. PG. 672.
 BLILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 178, 179.
 BREW & CO., INC., RICHARD D., Concord, N. H. ADV. PG. 524.
 CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
 LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
 Meridian, Inc., 880 Main St., Stamford, Conn.
 MICROSONICS, INC., Hingham Industrial Center, Route 3A, Hingham, Mass. ADV. PG. 458.
 Sturupp, Inc., 50 Silver St., Middletown, Conn.

DEMINEALIZERS & STILLs—Water

BARNSTEAD STILL & STERILIZER CO., INC., 84 Lanesville Terrace, Boston 31, Mass. ADV. PG. 418.
 Graver Water Conditioner Co., 216 W. 14th St., New York, N. Y.
 La Motte Chemical Products Co., Chestertown, Md.
 Penfield Mfg. Co., 19 High School Ave., Meriden, Conn.
 Permutit Co., The, 330 W. 42nd St., New York 36, N. Y.

DEMOMULATORS**e—indicates electronic**

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J. (e)
 AIRPAC PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300.
 American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y. (e)
 Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah. (e)
 Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y. (e)
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 16, Md.
 INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
 INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
 MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
 MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.
 MINNEAPOLIS-HONEYWELL, BOSTON DIV., 1400 Soldiers Field Rd., Boston 15, Mass. ADV. PG. 445.
 North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif. (e)
 NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 200-202.
 Pegasus Laboratories, Inc., 3692 Eleven Mile Rd., Berkeley, Mich. (e)
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif. (e)
 SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
 SANDERS ASSOCIATES, INC., Nashua, N. H. ADV. PG. 534.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y. (e)
 TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417. (e)
 TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 535. (e)
 TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 468.
 TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405. (e)
 TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.
 Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.

DENSITOMETERS—Electronic

BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Eberline Instrument Division, P.O. Box 279, Santa Fe, N. M.
 Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.
 Herrmfield Engineering Corp., Frank, 5716 Camille Ave., Culver City, Calif.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
 POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PAGE 372, 373.
 Spincor Div. of Beckman Instruments, Inc., Stanford Industrial Park, Palo Alto, Calif.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

DEPTH SOUNDERS

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125 Westboro, Mass. ADV. PG. 566.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
 Edo Corp., College Point, N. Y.
 KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
 Kelvin & Hughes Ltd., New North Rd., Barking, Essex, England.
 Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
 Sonar Radio Corp., 3050 W. 21st St., Brooklyn 24, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.

DETECTORS—Crystal

Admittance-Namco Corp., Farmingdale, N. Y.
 Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.
 Automatic Mfg. Div. of General Instrument Corp., 65 Gouverneur St., Newark, N. J.
 BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
 FREQUENCY STANDARDS, INC., P. O. Box 504, Asbury Park, N. J. ADV. PG. 578.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
 HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. ADV. PG. 340-343.
 J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
 KEARFOTT CO., INC., WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.
 MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
 POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
 RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London W.C. 2, England.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 535.
 TRANSITRON ELECTRONIC CORP., 168 Albion St., Wakefield, Mass. ADV. PG. 176, 177.

DETECTORS—Crystal Germanium

See CRYSTALS—Germanium

DETECTORS—Crystal Silicon

See CRYSTALS—Silicon

DETECTORS—Explosive Gas

Hunter-Bristol Corp., Bristol, Pa.
 Johnson-Williams, Inc., 2526 Park Blvd., Palo Alto 14, Calif.
 Tallor & Cooper Co., 75 Front St., Brooklyn 1, N. Y.

DETECTORS—Fire, Electronic

Arnoux Corp., Box 34628, Los Angeles, Calif.
 Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
 BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
 Fireye Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Kidde & Co., Inc., Walter, 477 Main St., Belleville 9, N. J.
 Lumenite Electric Co., 407 S. Dearborn St., Chicago 5, Ill.
 Marine Electric Co., 600 E. Fourth Ave., Brooklyn 15, N. Y.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgeway Rd., Minneapolis 13, Minn.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Teller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
VEC TROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.

DETECTORS—Flaw & Defect, Electronic

Dice Co., J. W. Englewood, N. J.
 Electro Circuits, Inc., 401 E. Green St., Pasadena, Calif.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
 Kelvin & Hughes Ltd., New North Rd., Barking, Essex, England.
 Magnetic Analysis Corp., 42-44 12th St., Long Island City 1, N. Y.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
RADAR ENGINEERS, 403 E. 45th St., Seattle 5, Wash. ADV. PG. 462.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.

DETECTORS—Flaw, Ultrasonic

Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
 Branson Instruments, Inc., 1 Brown House Rd., Stamford, Conn.
 Dice Co., J. W. Englewood, N. J.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
 Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.

DETECTORS—Galena

Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.

DETECTORS—Impedance

ADVANCE ELECTRONICS LAB., INC., 249-259 Terhune Ave., Passaic, N. J. ADV. PG. 420.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
 Transline Associates, 95 Summit St., Newark 3, N. J.

DETECTORS—Leak

Advanced Electronics, Inc., 94 Silas Deane Highway, Rocky Hill, Conn.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 615.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Consolidated Electrodynamics Corp., Rochester Div., Rochester 3, N. Y.
EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.
 Fisher Research Lab., Inc., 1961 University Ave., Palo Alto, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Goldak Co., Inc., The Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
 Johnson-Williams, Inc., 2526 Park Blvd., Palo Alto 14, Calif.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
LINDE AIR PRODUCTS CO., A DIV. OF UNION CARBIDE & CARBON CORP., 30 E. 42nd St., New York 17, N. Y. ADV. PG. 636.
 Menlo Research Laboratory, 538 Phelan Ave., San Jose, Calif.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.
 Reed-Curtis Nuclear Industries, Inc., 9459 N. Jefferson Blvd., Culver City, Calif.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
 Vacuum Equipment Div. of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.
VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.

DETECTORS—Metal, Electronic

Allis-Chalmers Mfg. Co., 935 S. 70th St., Milwaukee 1, Wis.
 Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.

Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
 Brilmayer Labs., Inc., E. W., 86 Fulton St., New York 38, N. Y.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
 Dice Co., J. W., Englewood, N. J.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
 Gardiner Electronics, 2545 E. Indian School Rd., Phoenix, Ariz.
 Goldak Co., Inc., The Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
 Harworth Mfg. Co., 409 El Camino Real, Menlo Park, Calif.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Omco, U. S. 93 & Les Palomas St., Kingham, Ariz.
RADIO CORP. OF AMERICA ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Robotron Corp., 21300 W. Eight Mile Rd., Detroit 19, Mich.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.

DETECTORS—Null

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
 Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., Box 10, Morristown, N. J.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 236.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
FREED TRANSFORMER CO., INC., 1736 Wierfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 503.
 KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 Pennsylvania Testing Lab., Inc., Doylestown, Pa.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
 Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

DETECTORS—Null-r-f

Airmec Ltd., High Wycombe, Buckinghamshire, England.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

DETECTORS—Null—VTVM

Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
 Fluke Mfg. Co., Inc., 1111 W. Nickerson St., Seattle 99, Wash.
GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.

KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Millivac Instrument Corp., 2315 Second Ave., Garman, P. O. Box 997, Schenectady, N. Y.

DETECTORS—Radiation See COUNTERS—Geiger

DETECTORS—Smoke, Electronic

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Kelvin & Hughes Ltd., New North Rd., Barking, Essex, England.
 Kidde & Co., Inc., Walter, 477 Main St., Belleville 9, N. J.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Machinery Electrification Inc., Northboro, Mass.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
 Television Utilities Corp., 112-23 Colonial Ave., Corona, N. Y.
 Worner Electronic Devices, Rankin, Ill.

DETECTORS—Standing Wave

AIRCORN INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.
 Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 Bruel & Kjaer, Naerum, Denmark.
 California Technical Industries, 1421 Old Country Rd., Belmont, Calif.
 Defiance Engineering & Microwave Corp., Box 488, Beverly, Mass.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 658, 659.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Graham Mfg. Co., Inc., 247 Bridge St., East Greenwich, R. I.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
 Johnson Co., E. F., Waseca, Minn.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
 Pennsylvania Testing Lab., Inc., Doylestown, Pa.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Waveline, Inc., Box 470, Caldwell, N. J.

DETECTORS—Vibration

Advanced Electronics, Inc., 94 Silas Deane Highway, Rocky Hill, Conn.
 Beta Corp., P. O. Box 8625, Richmond, Va.
 Bruel & Kjaer, Naerum, Denmark.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Crescent Engineering & Research Co., 5540 N. Peck Rd., El Monte, Calif.
 Dubrow Development Co., 235B Penn St., Burlington, N. Y.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
 Fielden Instrument Div. of Robertshaw-Fulton Control Co., 2920 N. Fourth St., Philadelphia 33, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110, 316, 317.
 International Research & Development Corp., 769 Thomas Lane, P. O. Box 1707, Columbus 16, Ohio.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
MB MFG. CO., A DIV. OF TETRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 552.

Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.

DETECTORS—Water Leak

American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
Delmhorst Instrument Co., 601 Cedar St., Bonton, N. J.
Fisher Research Lab., Inc., 1961 University Ave., Palo Alto, Calif.
Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
Menlo Research Laboratory, 538 Phelan Ave., San Jose, Calif.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.

DIAGNOSTIC EQUIPMENT—Computer

Audivox, Inc., 123 Worcester St., Boston 18, Mass.
Electronics Manufacturing Div. of Sid Stone Radio Labs., 739 Tremont St., Boston, Mass.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54 Mass. ADV. PG. 250, 251.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

DIAL CRYSTALS

Croname, Inc., 1747 Grace St., Chicago 13, Ill.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
Parisian Novelty Co., 3510 South Western Ave., Chicago 9, Ill.
Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
Sillcocks-Miller Co., Maplewood, N. J.

DIAL LIGHTS

See **LIGHTS—Dial, Panel and Pilot**

DIALS—Instrument

ACKERMAN ENGRAVERS, 458 Broadway, New York, N. Y. ADV. PG. 642.
Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
ALLIED ALLEGRI, INC., 141 River Rd., Nutley, N. J. ADV. PG. 650.
American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
Atlantic Engravers, Inc., 52 Ocean Ave., Amityville, N. Y.
BODNAR INDUSTRIES, INC., 238 Huguenot St., New Rochelle, N. Y. ADV. PG. 691.
Bolling Industries, Inc., 1117 N. Main Ave., Scranton 2, Pa.
Bristol Co., The, P.O. Box 1790 EBG, Waterbury 20, Conn.
Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
Cleveland Metal Specialties Corp., 1783 E. 21st St., Cleveland 14, Ohio.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Croname, Inc., 1747 Grace St., Chicago 13, Ill.
DALE PRODUCTS, INC. Box 136, Columbus, Neb. ADV. PG. 438, 439.
Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Etched Products Corp., 3901 Queens Blvd., Long Island City 4, N. Y.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
Fairfield Engineering Corp., 934 Hope St., Springfield, Conn.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
Fisher & Crome, 107 N. Camac St., Philadelphia 7, Pa.
Ford Engineering Co., Inc., 129 E. "A" St., Upland, Calif.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Henry and Miller Industries Inc., 675 Garfield Ave., Jersey City 5, N. J.
Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.
Industrial Engravers, Inc., 2212 McDonald Ave., Brooklyn 23, N. Y.
Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
LEYSE ALUMINUM CO., Kewaunee, Wis. ADV. PG. 452.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
P I C Design Corp., 477 Atlantic Ave., East Rockaway, N. Y.
Panelgraphic Corp., P. O. Box 254, Caldwell, N. J.
Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
Pfeger Products, 3901 W. 54th St., Los Angeles 43, Calif.

LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.
Lancaster Glass Corp., Lancaster, Ohio.
LEYSE ALUMINUM CO., Kewaunee, Wis. ADV. PG. 452.
Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Muirhead & Co., Ltd., Beckenham, Kent, England.
Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
P I C Design Corp., 477 Atlantic Ave., East Rockaway, N. Y.
Panelgraphic Corp., P. O. Box 254, Caldwell, N. J.
Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
Park Nameplate Co., Inc., 34-10 Linden Place, Flushing 54, N. Y.
Photo Chemical Products, Inc., 999A Stewart Ave., Garden City, N. Y.
Remier Company, 2101 Bryant St., San Francisco 10, Calif.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Sierra Electric Corp., 15100 S. Figueroa St., P.O. Box 85, Gardena, Calif.
Sillcocks-Miller Co., Maplewood, N. J.
Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.
Sun Dial Corp., E. Passaic Ave., Caldwell, N. J.
Supreme Process Corp., 44 Bond St., Westbury, N. Y.
Tablet & Ticket Co., 1021 W. Adams St., Chicago 7, Ill.
Technicraft Co., 1156 Commonwealth Ave., Boston 34, Mass.
Techniques, Inc., 52 Jackson Ave., Hackensack, N. J.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.
Vandercook & Sons, Inc., 3601 W. Touhy Ave., Chicago 45, Ill.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.
WESTINGHOUSE ELECTRIC CORP., P.O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

DIALS—Precision

ACKERMAN ENGRAVERS, 458 Broadway, New York, N. Y. ADV. PG. 642.
Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
ALLIED ALLEGRI, INC., 141 River Rd., Nutley, N. J. ADV. PG. 650.
Atlantic Engravers, Inc., 52 Ocean Ave., Amityville N. Y.
Bolling Industries, Inc., 1117 N. Main Ave., Scranton 2, Pa.
BORG EQUIPMENT DIVISION, THE GEORGE W. BORG CORP., Janesville, Wis. ADV. PG. 142.
Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
Carnwell Co., Allen D., The, 97 Whiting St., Plainview, Conn.
Croname, Inc., 1747 Grace St., Chicago 13, Ill.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Etched Products Corp., 3901 Queens Blvd., Long Island City 4, N. Y.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
Ford Engineering Co., Inc., 129 E. "A" St., Upland, Calif.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Helipot Corp., Newport Beach, Calif.
Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.
Industrial Engravers, Inc., 2212 McDonald Ave., Brooklyn 23, N. Y.
Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
LEYSE ALUMINUM CO., Kewaunee, Wis. ADV. PG. 452.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
P I C Design Corp., 477 Atlantic Ave., East Rockaway, N. Y.
Panelgraphic Corp., P. O. Box 254, Caldwell, N. J.
Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
Pfeger Products, 3901 W. 54th St., Los Angeles 43, Calif.

Photo Chemical Products, Inc., 999A Stewart Ave., Garden City, N. Y.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
SERVOMECHANISMS, INC., MECHATROL DIV., 625 Main St., Westbury, N. Y. ADV. PG. 25.
Sillcocks-Miller Co., Maplewood, N. J.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Supreme Process Corp., 44 Bond St., Westbury, N. Y.
Sun Dial Corp., E. Passaic Ave., Caldwell, N. J.
Techniques, Inc., 52 Jackson Ave., Hackensack, N. J.
Transradio, Ltd., 138A Cromwell Rd., London S.W. 7, England.
U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

DIAPHRAGMS

Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
BACON INDUSTRIES, INC., 192 Pleasant St., Watertown, Mass. ADV. PG. 619.
BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 311.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 311.
Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.
Bristol Co., The, P. O. Box 1790EBG, Waterbury 20, Conn.
Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
CONNECTICUT HARD RUBBER CO., 407 East St., New Haven 9, Conn. ADV. PG. 646.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Friez Instrument Division, Bendix Aviation Corp., Baltimore 4, Md.
Garlock Packing Co., The, Palmyra, N. Y.
GIBSON CO., WILLIAM D., THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 311.
Goodrich Industrial Products Co., B. F., 500 S. Main St., Akron 18, Ohio.
Johns-Manville, 22 E. 40th St., New York 16, N. Y.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 311.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 311.
Raybestos-Manhattan, Inc., 61 Willett St., Passaic, N. J.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 311.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 694.
SEABOARD COIL SPRING DIVISION, 15011 S. Broadway, Gardena, Calif. ADV. PG. 311.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Stevens Products Inc., 86-88 Main St., East Orange, N. J.
Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.

DIATHERMY & DIATHERMY ACCESSORIES

American Diathermy Products, Inc., 11858 Mississippi Ave., Los Angeles 25, Calif.
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BIRTCOR CORP., 4371 Valley Blvd., Los Angeles 32, Calif. ADV. PG. 636.
Fischer & Co., R. A., 517 Commercial St., Glendale 3, Calif.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
Merit Short Wave Diathermy Co., 2758 Whittier Blvd., Los Angeles 23, Calif.
Mooradian High Frequency Labs., 13 E. Fort Lee Rd., Botogata, N. J.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Wappler, Inc., 27-10 Astoria Blvd., Long Island City 2, N. Y.
X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

DIELECTRIC HEATING

See **HEATING—Dielectric**

DIELECTRICS—Gas

BAKER & ADAMSON PRODUCTS, GENERAL CHEMICAL DIV. OF ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. ADV. PG. 363.

DIELECTRICS—Liquid

Dow Corning Corp., Midland, Mich.
Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
General Electric Co., Silicone Products Dept., Waterford, N. Y.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

DIELECTRICS—Solid

See **FILMS—Capacitor**
INSULATION MATERIALS
Ceramic
Glass
Mica
PLASTIC MATERIALS

DIES

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 644.
Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
Amatom Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
AMERICAN LAVA CORP., Cherokee Blvd., & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
Beryllium Corp., Reading, Pa.
Eltran Corp., St. Anne, Ill.
Erca Tool Die & Stamping Co., 19 Ash St., Brooklyn 22, N. Y.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
Eyelet Tool Co., Inc., 236A Broadway, Cambridge 42, Mass.
Fort Hill Plastic Letters Corp., 40 Hanover St., Boston, Mass.
GENERAL ELECTRIC CO., MAGNETIC MATERIALS SECTION, 7780 Neff Rd., Edmore, Mich. ADV. PG. 16, 17.
Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
Hovis Screwlock Co., 8100 E. Nine Mile Rd., Van Dyke, Mich.
I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 86, 87.
KRENGEL MFG. CO., INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 690.
Metro Engineering Associates, Easthampton, Mass.
Morris Co., J. I., Southbridge, Mass.
O'Neil-Irwin Mfg. Co., 316 Eighth Ave., Lake City, Minn.
Quadrif Mfg. Co., 213 W. Grand Ave., Chicago 10, Ill.
Repach Pacific Div. of Arnold Engineering Co., 641 E. 61st St., Los Angeles 1, Calif.
Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Sheffield Corp., The Dayton 1, Ohio.
Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.
Thomas & Sons, Inc., William, Slocum Ave., Ridgefield, N. J.
Trent Tube Co., East Troy, N. Y.
Wales-Strippit Co., Akron, New York.
Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.
WENCO MFG. CO., 1133 W. Hubbard St., Chicago 22, Ill. ADV. PG. 520.
Whistler & Sons, Inc., S. B., 752 Military Rd., Buffalo 23, N. Y.
Wiedemann Machine Co., 4272 Wissahickon Ave., Philadelphia 32, Pa.

DIODES—Germanium

American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
Arnold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
Clevite Transistor Products, A Div. of Clevite Corp., 241-257 Crescent St., Waltham 54, Mass.
General Electric Co. Ltd., of England, 80 Shore Rd., Port Washington, N. Y.
HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. ADV. PG. 340-343.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Kemtron Electron Products, Inc., 5 Prince Place, Newbury Port, Mass.
LANSDALE TUBE CO., DIV. OF PHILCO CORP., Church Rd., Lansdale, Pa. ADV. PG. 51.
Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif.
Pacific Semiconductors, Inc., 10451 W. Jefferson, Culver City, Calif.
Qutronic Semi-Conductor Corp., 525 Broadway, New York 12, N. Y.

RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO RECEPTOR CO., 240 Wythe Ave., Brooklyn 11, N. Y. ADV. PG. 68, 69.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
Standard Telephones & Cable Ltd., Connaught House, Aldwych, London, W.C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
TRANSITRON ELECTRONIC CORP., 168 Albion St., Wakefield, Mass. ADV. PG. 176, 177.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 5, N. J. ADV. PG. 361.
United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

DIODES—Microwave Mixer

See **MICROWAVE ACCESSORIES**

DIODES—Selenium

See **RECTIFIERS—Metallic Stack**

DIODES—Silicon

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
Automatic Mfg. Div. of General Instrument Corp., 65 Gouverneur St., Newark, N. J.
Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 186, 187.
CBS-Hytron, A Div. of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
Flight Research, Inc., P. O. Box 1-F, Richmond 1, Va.
General Electric Co. Ltd., of England, 80 Shore Rd., Port Washington, N. Y.
GENERAL TRANSISTOR CORP., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 243.
Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
HOFFMAN SEMICONDUCTOR DIV. OF HOFFMAN ELECTRONICS CORP., 930 Pitner Ave., Evanston, Ill. ADV. PG. 443.
HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. ADV. PG. 340-343.
INTERNATIONAL RECTIFIER CORP., 1521 E. Grand Ave., El Segundo, Calif. ADV. PG. 218.
Kemtron Electron Products, Inc., 5 Prince Place, Newburyport, Mass.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
MOTOROLA, INC., SEMICONDUCTOR PRODUCTS DIV., 5005 E. McDowell Rd., Phoenix, Ariz. ADV. PG. 639.
Pacific Semiconductors, Inc., 10451 W. Jefferson, Culver City, Calif.
Qutronic Semi-Conductor Corp., 525 Broadway, New York 12, N. Y.
Radio Development & Research Corp., 100 Pennsylvania Ave., Paterson 3, N. J.
RADIO RECEPTOR CO., 240 Wythe Ave., Brooklyn 11, N. Y. ADV. PG. 68, 69.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 434.
Sickles, F. W., Div. General Instrument Corp., 165 Front St., Chicopee, Mass.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
Thermosen, Inc., 361 W. Main St., Stamford, Conn.
TRANSITRON ELECTRONIC CORP., 168 Albion St., Wakefield, Mass. ADV. PG. 176, 177.
United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

DIODES—Silicon Power

Delco Radio Division, GM Corp., 700 E. Firmin St., Kokomo, Ind.
INTERNATIONAL RECTIFIER CORP., 1521 E. Grand Ave., El Segundo, Calif. ADV. PG. 218.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
Qutronic Semi-Conductor Corp., 525 Broadway, New York 12, N. Y.
RADIO RECEPTOR CO., 240 Wythe Ave., Brooklyn 11, N. Y. ADV. PG. 68, 69.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 College Ave., Bloomington, Ind. ADV. PG. 434.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira, N. Y.

DIRECTION FINDERS

AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Collins Radio Co., Cedar Rapids, Iowa.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles 7, Calif.
International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
Jefferson, Inc., Ray, 40 E. Merrick Rd., Freeport, N. Y.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
Magnavox Co., The 2131 Beuter Rd., Fort Wayne, Ind.
Marconi's Wireless Telegraph Co. Ltd., 23-25 Beaver St., New York 4, N. Y.
Oaktron Electric Co., Tinley Park, Ill.
Olympic Radio & Television Co., 34-01 38th Ave., Long Island City, N. Y.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
Sonar Radio Corp., 3050 W. 21st St., Brooklyn 24, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

DISCS—Blank Recording

Allied Recording Products Co., 32-32 Greenpoint Ave., Long Island City 1, N. Y.
Audio Devices, Inc., 444 Madison Ave., New York 22, N. Y.
Presto Recording Corp., P. O. Box 500, Paramus, N. J.
Recoton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.
Reeves Soundcraft Corp., 10 E. 52nd St., New York 22, N. Y.
Zephyr Products Co., 129 E. 124th St., New York 55, N. Y.

DISPLAY DEVICES—Electrostatic

See **TUBES—Cathode Ray**

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METROPOLITAN DISTRIBUTORS, 1133 Broadway, New York 10, N. Y. ADV. PG. 591.
SCHWEBER ELECTRONICS, 122 Herricks Rd., Mineola, N. Y. ADV. PG. 627.
WESTERN INTERNATIONAL CO., 45 Vesey St., New York, N. Y. ADV. PG. 682.

DIVIDERS—Power

See **MICROWAVE ACCESSORIES**

DIVIDERS—Voltage

ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
Electro-Measurements, Inc., 7524 S. W. Macadam, Portland 1, Ore.
Fluke Mfg. Co., Inc., 1111 W. Nickerson St., Seattle 99, Wash.
GIANNINI & CO., INC., G.M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
GRAY INSTRUMENT CO., 200 E. Church Lane, Philadelphia 44, Pa. ADV. PG. 643.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
JENNINGS RADIO MFG. CORP., 970 McLaughlin Ave., P. O. Box 1278, San Jose 8, Calif. ADV. PG. 406, 407.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 61.
Muirhead & Co. Ltd., Beckenham, Kent, England.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.
WacLine, Inc., 35 S. St., Claire St., Dayton 2, Ohio.

WARD LEONARD ELECTRIC CO., 31 South St., Mt. Vernon, N. Y. ADV. PG. 408.

DOLLIES—Laboratory & Oscilloscope

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 589.

Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.

BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.

DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.

P.B.R. MANUFACTURING CO., H & Luzerne Sts., Philadelphia 24, Pa. ADV. PG. 684.

Peterson & Neville, Inc., 365 Dorchester Ave., Boston, Mass.

PRECISE MEASUREMENTS CO., R.D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.

SCIENTIFIC ENGINEERING LABORATORIES, 2229 McGee Ave., Berkeley, Calif. ADV. PG. 477.

TECHNICAL SERVICE CORP., 1404 W. Market St., Louisville 5, Ky. ADV. PG. 570.

DOSIMETERS

ANTON ELECTRONIC LABS, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.

Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.

BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.

Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.

Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.

CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.

Devtron Engineering, 1 Winslow St., Redwood City, Calif.

Landsverk Electrometer Co., 550 W. Garfield Ave., Glendale 4, Calif.

NRD Instrument Co., 6425 Etzel Ave., St. Louis 14, Mo.

Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

Nucleonic Company of America, 196 DeGraw St., Brooklyn 31, N. Y.

Pittsburgh Plate Glass Co., 1 Gateway Center, Pittsburgh 22, Pa.

Servo-Recording Instruments, Inc., 1815 W. Van Buren, Phoenix, Ariz.

Technical Associates, 140 W. Providencia Ave., Burbank, Calif.

UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRANSISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. ADV. PG. 548.

Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

DRAFTING EQUIPMENT

Dietzgen Co., Eugene, 2425 Sheffield Ave., Chicago, Ill.

Bruning Co., Inc., Charles, 4700 Montrose Ave., Chicago 41, Ill.

Chart-Pak, Inc., Leeds, Mass.

Clearprint Paper Co., 1482 67th St., Emeryville, Calif.

Eagle Pencil Co., 703 E. 13th St., New York, N. Y.

E-Z Templates, P. O. Box 86424, Los Angeles 66, Calif.

Fisher & Crome, 107 N. Camac St., Philadelphia 7, Pa.

Griffin Co., John, 2157 James Ave., St. Paul 5, Minn.

Hamilton Mfg. Co., Two Rivers, Wis.

Johnson Research Corp., Bethpage, N. Y.

Joyro Associates, 488 Latham Rd., Mineola, N. Y.

Karp, Lawrence A., 16 Putnam Park, Greenwich, Conn.

Keuffel & Esser Co., Hoboken, N. J.

Koh-I-Moor Pencil Co., Bloomsbury, N. J.

Pease Co., C. F., 2601 W. Irving Park Rd., Chicago, Ill.

Post Co., Frederick, 3650 N. Avondale Ave., P. O. Box 803, Chicago 90, Ill.

PRECISE MEASUREMENTS CO., R.D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.

Stacor Equipment Co., 732 E. New York Ave., Brooklyn 5, N. Y.

Staedtler Inc., J. S., 25 Dicarolis Court, Hackensack, N. J.

Stanpak 150-42 12th Rd., Whitestone 57, N. Y.

Universal Drafting Machine Corp., 7960 Lorain Ave., Cleveland 2, Ohio.

Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.

Willson Camera Co., Inc., 1395 Lawrence Rd., Haver-town, Pa.

DRAFTING PAPER

Clearprint Paper Co., 1482 67th St., Emeryville, Calif.

Keuffel & Esser Co., Hoboken, N. J.

DRILL PRESSES—Precision

Acoustica Associates, Inc., Shore Rd., Glenwood Land-ing 2, N. Y.

High Speed Hammer Co., Rochester, N. Y.

Hillyer Instrument Co., Inc., 331 Centennial Ave., Cran-ford, N. J.

Levin & Sons, Inc., Louis, 3610 S. Broadway, Los Angeles 7, Calif.

MICO INSTRUMENT CO., 77 Trowbridge St., Cam-bridge 38, Mass. ADV. PG. 522.

Phillips & Hiss Co., Inc., 1155 McCadden Place, Holly-wood 38, Calif.

Wales-Strippit Co., Akron, New York.

DRIVERS—Recording

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

DRIVES—Small Electric Drive Mechanisms

BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridge-port 5, Conn. ADV. PG. 615.

BOWMAR INSTRUMENT CORP., 2415 Pennsylvania St., Fort Wayne, Ind. ADV. PG. 538, 539.

Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.

Croname, Inc., 1747 Grace St., Chicago 13, Ill.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

General Electric Co., Clock and Timer Dept., Ashland, Mass.

Hanson-Gorrill-Brian, Inc., 85 Hazel St., Glen Cove, N. Y.

HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury, Conn. ADV. PG. 531.

Nemeth, Inc., 2223 S. Carmelina Ave., Los Angeles 64, Calif.

Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.

PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.

Servospec Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson, N. J.

Servo-Tek Products Co., Inc., 1086 Goffle Rd., Haw-thorne, N. J.

Transco Products, Inc., 12210 Nebraska Ave., Los Angeles 25, Calif.

UNI-WAVE, INC., 2 Marine St., P. O. Box 474, Farming-dale, N. Y. ADV. PG. 428.

WacLine, Inc., 35 S. St. Claire St., Dayton 2, Ohio.

Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.

DRIVES VARIABLE SPEED

See CONTROLS—Electric AC Motor Speed

DRYERS, ELECTRONIC—Dehydration & Drying

Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 335 N. Newport Blvd., Newport Beach, Calif.

Daco Instrument Co., Tillary & Prince Sts., Brooklyn 1, N. Y.

Hayes Inc., C. I., 800 Wellington Ave., Cranston, R. I.

Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.

Miskella Infra-Red Co., The, E. 73rd & Grand Ave., Cleveland 4, Ohio.

MURPHY & MILLER, INC., 1322 S. Michigan Ave., Chi-cago 5, Ill. ADV. PG. 677.

New England Oven & Furnace Co., Post Rd., Orange, Conn.

Pittsburgh Lectrodryer Div. of McGraw-Edison Co., 300 32nd St., Pittsburgh 30, Pa.

Robbins Aviation, 1735 W. Florence Ave., Los Angeles 47, Calif.

Stokes Co., F. J., 5500 Tabor Rd., Philadelphia 20, Pa.

Woodwelding, Inc., 3000 W. Olive, Burbank, Calif.

DUPLEXERS—Microwave

See MICROWAVE ACCESSORIES

DYNAMOMETERS

Aerolab Development Co., 330 W. Holly St., Pasadena, Calif.

Bischof Die & Engraving, 1405 16th St., Racine, Wis.

Chatillon & Sons, John, 85 Cliff St., New York, N. Y.

Dalmotor Co., 1375 Clay St., Santa Clara, Calif.

Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.

Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

L. A. B. Corporation, Skaneateles, N. Y.

New England Scientific Instrument Co., Box 408, Cam-bridge 39, Mass.

STANDARD ELECTRIC TIME CO., 97 Logan St., Spring-field, Mass. ADV. PG. 143.

DYNAMOTORS

Bendix Aviation Corp., Montrose Div., South Montrose, Pa.

Carter Motor Co., 2746 W. George St., Chicago 18, Ill.

CONTINENTAL ELECTRIC CO., INC., 334 Ferry St., Newark 5, N. J. ADV. PG. 496.

Eicor, Inc., 4235 W. North Ave., Chicago 39, Ill.

ELECTRIC SPECIALTY CO., 300 South St., Stamford, Conn. ADV. PG. 490.

Electro Engineering Products Co., 609 W. Lake St., Chicago, Ill.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

INDUCTION MOTORS CORP., 570 Main St., Westbury, N. Y. ADV. PG. 266.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.

Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.

Lesia, Via Bergamo 21, Milan, Italy.

Motordyne Inc., 2661 S. Myrtle Ave., Monrovia, Calif.

Redmond Co., Inc., Owosso, Mich.

Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.

Small Motors, Inc., 2076 Elston Ave., Chicago 14, Ill.

Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.

Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia 4, Pa.

Wincharger Corp., E. 7th & Division Sts., Sioux City, Iowa.

ELBOWS

See MICROWAVE ACCESSORIES

BENDS—Microwave

ELECTROCARDIOGRAPHS

Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.

Corbett Science Laboratories, F. W., 3117 Venice Blvd., Los Angeles 19, Calif.

Edin Co., Inc., 207 Main St., Worcester, Mass.

Electrodyn Co., Endicott St., Norwood, Mass.

Holland Electronics, 40 Great Jones St., New York 12, N. Y.

Levinthal Electronic Products, Inc., 3180 Hanover St., Stanford Industrial Park, Palo Alto, Calif.

RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.

SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.

X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

ELECTRODES—High Frequency

BIRTCHER CORP., 4371 Valley Blvd., Los Angeles 32, Calif. ADV. PG. 636.

Electronic Processes Corp., 2190 Folsom St., San Fran-cisco 10, Calif.

VOLTARC TUBES, INC., 44 Cross St., Norwalk, Conn. ADV. PG. 699.

ELECTROENCEPHALOGRAPHS

Edin Co., Inc., 207 Main St., Worcester, Mass.

Electro-Medical Lab., Inc., South Woodstock 8, Vt.

Grass Instrument Co., 101 Old Colony Ave., Quincy, Mass.

Nevada Air Products Co., P. O. Box 2472, Reno, Nev.

Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.

ELECTRO MAGNETS

See MAGNETS

ELECTROMETERS

AMERICAN TRADAIR CORP., SUB. OF EKCO ELEC-TRONICS, LTD., 34-01 30th St., Long Island City 6, N. Y. ADV. PG. 693.

Applied Physics Corp., 362 W. Colorado St., Pasadena 1, Calif.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

Central Electronic Manufacturers Inc., 2 Richwood Place, Denville, N. J.

CURTIS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.

ELECTROMATION CO., 1646 Eighteenth St., Santa Monica, Calif. ADV. PG. 692.

KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.

Landsverk Electrometer Co., 550 W. Garfield Ave., Glen-dale 4, Calif.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUS-TRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.

Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.

RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.

Servo-Recording Instruments, Inc., 1815 W. Van Buren, Phoenix, Ariz.

ELECTROMYOGRAPHS

Electro-Medical Lab., Inc., South Woodstock 8, Vt.

LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.

Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 26, Ill.

Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.

Teca Corp., 80 Main St., White Plains, N. Y.

ELECTROPLETHYSMOGRAPHS

Grass Instrument Co., 101 Old Colony Ave., Quincy, Mass.

Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

ELECTRO-SHOCK THERAPY APPARATUS

Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.

ELECTRO-SURGICAL APPARATUS

BIRTCHEE CORP., 4371 Valley Blvd., Los Angeles 32, Calif. ADV. PG. 636.
 Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
 Dallons Laboratories, Inc., 5066 Santa Monica Blvd., Los Angeles 29, Calif.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 546.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn. Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.
 Levinthal Electronic Products, Inc., 3180 Hanover St., Stanford Industrial Park, Palo Alto, Calif.
 Mooradian High Frequency Labs., 13 E. Fort Lee Rd., Bogata, N. J.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
 Wappler, Inc., 27-10 Astoria Blvd., Long Island City 2, N. Y.
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

ELEMENTS—Heating

Acme Electric Heating Co., 1217 Washington St., Boston, Mass.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
 Cox & Co., Inc., 115 E. 23rd St., New York 10, N. Y.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
 Electro-Flex Heat, Inc., 83 Woodbine St., Hartford 6, Conn.
 Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Goodrich Aviation Products, B. F., Div. of B. F. Goodrich Co., Akron, Ohio.
 Huppert Co., K. H., 6864 S. Cottage Grove Ave., Chicago 37, Ill.
 Hayes Inc., C. I., 800 Wellington Ave., Cranston, R. I.
 Polymica & Insulation Co., 683 Main St., Willimantic, Conn.
 Safeway Heat Element Inc., 680 Newfield St., Middletown, Conn.
 States Co., 19 New Park Ave., Hartford 6, Conn.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
 Vulcan Electric Co., Danvers, Mass.
 Wall Mfg. Co., Grove City, Pa.
WESTINGHOUSE ELECTRIC CORP., P.O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

ELEMENTS, HEATING—Crystal Oven

Cox & Co., Inc., 115 E. 23rd St., New York 10, N. Y.
 Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
 States Co., 19 New Park Ave., Hartford 6, Conn.

EMBEDDED ASSEMBLIES

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 615.
 Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
 Allied Industries, Inc., 25th & Woodland Ave., Louisville 10, Ky.
AMP INC., CHEMICALS & DIELECTRICS DIV., 155 Park St., Elizabethbethown, Pa. ADV. PG. 255.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
 Decatur Electronics Industries Corp., 203 Ornicco Drive, Brightwater, N. Y.
 DeLuxe Coils, Inc., Wabash, Ind.
 Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
 Electro Winders Co., Inc., 854 W. Front St., Covina, Calif.

Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
ELECTRONIC PLASTICS CORP., 675 Barbey St., Brooklyn 7, N. Y. ADV. PG. 663.
 Electronic Service Corp., 2906 Birch St., Franklin Park, Ill.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
 Fisher Engineering, Inc., 2060 U.S. East, P.O. Box 327, Huntington, Ind.
GENERAL RESISTANCE PRODUCTS CORP., 577 E. 156th St., New York 55, N. Y. ADV. PG. 612.
INSTANT CIRCUITS DIV. OF ALFRED W. BARBER LABS., 32-44 Francis Lewis Blvd., Flushing, N. Y. ADV. PG. 660.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
NATIONAL COIL CO., P.O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
 New York Coil Co., Phoenixville 12, Pa.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 1, N. J. ADV. PG. 648.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.
 Randall Inc., Douglas, 6 Pawcatuck Ave., Westerly, R. I.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
 Sierra Electric Corp., 15100 S. Figueroa St., P.O. Box 85, Gardena, Calif.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W. 3, England.
 Telex, Inc., Telex Park, St. Paul 1, Minn.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
 Whitney Blake Co., New Haven 14, Conn.
 Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.

EMBEDDED COMPONENTS

AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 615.
 Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
 DeLuxe Coils, Inc., Wabash, Ind.
 Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
 Electro-Winders Co., Inc., 854 W. Front St., Covina, Calif.
 Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
ELECTRONIC PLASTICS CORP., 675 Barbey St., Brooklyn 7, N. Y. ADV. PG. 663.
 Electronic Service Corp., 2906 Birch St., Franklin Park, Ill.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind.
GENERAL RESISTANCE PRODUCTS CORP., 577 E. 156th St., New York 55, N. Y. ADV. PG. 612.
 Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
INSTANT CIRCUITS DIV. OF ALFRED W. BARBER LABS., 32-44 Francis Lewis Blvd., Flushing, N. Y. ADV. PG. 660.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
 New York Coil Co., Phoenixville 12, Pa.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.

Randall Inc., Douglas, 6 Pawcatuck Ave., Westerly, R. I.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
 Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W. 3, England.
 Telex, Inc., Telex Park, St. Paul 1, Minn.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
 Whitney Blake Co., New Haven 14, Conn.

ENCAPSULATION SERVICES

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 615.
 Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
 Allied Industries, Inc., 25th & Woodland Ave., Louisville 10, Ky.
 Applied Resins Corp., 304 Oraton St., Newark 4, N. J.
 Aries Laboratories, Inc., 45-33 Davis St., Long Island City 1, N. Y.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 Boonton Molding Co., Boonton, N. J.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 De Luxe Coils, Inc., Wabash, Ind.
 DeWitt Development Co., 308 W. 127th St., Blue Island, Ill.
 Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
 Electro-Winders Co., Inc., 854 W. Front St., Covina, Calif.
 Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
ELECTRONIC PLASTICS CORP., 675 Barbey St., Brooklyn 7, N. Y. ADV. PG. 663.
 Electronic Service Corp., 2906 Birch St., Franklin Park, Ill.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Ellanar Chemical Co., 2308 Oakton St., Evanston, Ill.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Epoxy Products, Inc., 137 Colt St., Irvington, N. J.
 Essex Electronics, Berkeley Heights, N. J.
 Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind.
GENERAL RESISTANCE PRODUCTS CORP., 577 E. 156th St., New York 55, N. Y. ADV. PG. 612.
 Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
INSTANT CIRCUITS DIV. OF ALFRED W. BARBER LABS., 32-44 Francis Lewis Blvd., Flushing, N. Y. ADV. PG. 660.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass.
 Metaplast Corp., Davisville Rd. at Pa. Turnpike, Hatboro, Pa.
MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
 Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
 National Engineering Products, Inc., 435 Washington Bldg., Washington 5, D. C.
 New York Coil Co., Phoenixville 12, Pa.
 Nopco Chemical Co., Plastics Div., Harrison, N. J.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass.
 Randall Inc., Douglas, 6 Pawcatuck Ave., Westerly, R. I.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
 Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill.
 Smooth-On Mfg. Co., 572 Communipaw Ave., Jersey City 4, N. J.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Technicraft Co., 1156 Commonwealth Ave., Boston 34, Mass.
 Telex, Inc., Telex Park, St. Paul 1, Minn.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 Viking Industries, Inc., 21343 Roscoe Blvd., Canoga Park, Calif.

WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

ENCAPSULATORS OF PLASTIC MATERIALS

See **ENCAPSULATION SERVICES**

ENCLOSURES

See **CABINETS HOUSINGS**

ENGRAVING & PROFILING—Services

ACKERMAN ENGRAVERS, 458 Broadway, New York, N. Y. ADV. PG. 642.
Acme Teletronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
Bolling Industries, Inc., 1117 N. Main Ave., Scranton 2, Pa.
Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Diamond-Union Stamp Works, 81 Washington St., Boston 8, Mass.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
Fisher & Crome, 107 N. Camac St., Philadelphia 7, Pa.
Fort Hill Plastic Letters Corp., 40 Hanover St., Boston, Mass.
Globe Electrical Mfg. Co., 1729 W. 134th St., Gardena, Calif.
Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.
Industrial Engravers, Inc., 2212 McDonald Ave., Brooklyn 23, N. Y.
Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 522.
Mapleplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.
NEW HERMES ENGRAVING MACHINE CORP., 13-19 University Place, New York 3, N. Y. ADV. PG. 687.
Panelyte Div., St. Regis Paper Co., 261 Madison Ave., New York 16, N. Y.
Pfieger Products, 3901 W. 54th St., Los Angeles 43, Calif.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
SONEX, INC., 73 S. State Rd., Upper Darby, Pa. ADV. PG. 664.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Strickland Engineering Co., Inc., 117 Austin St., Newtonville, Mass.
Technicraft Co., 1156 Commonwealth Ave., Boston 34, Mass.
Techniques, Inc., 52 Jackson Ave., Hackensack, N. J.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.

ENVIRONMENTAL TEST EQUIPMENT

See **TEST EQUIPMENT—Environmental**

ESCUTCHEONS

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
Chicago Die Mold Div. of U. S. Rubber Co., 4300 New Haven Ave., Fort Wayne 4, Ind.
Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
Croname, Inc., 1747 Grace St., Chicago 13, Ill.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
Lancaster Glass Corp., Lancaster, Ohio.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.
NORTH SHORE NAMEPLATE INC., 214-27 Northern Blvd., Bayside 61, N. Y. ADV. PG. 486.
Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.

Park Nameplate Co., Inc., 34-10 Linden Place, Flushing 54, N. Y.
Photo Chemical Products, Inc., 999A Stewart Ave., Garden City, N. Y.
Sillocks-Miller Co., Maplewood, N. J.
Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
Techniques, Inc., 52 Jackson Ave., Hackensack, N. J.

ETCHED CIRCUITS

See **CIRCUITS—Printed, Stamped or Etched**

EXTRUDERS OF PLASTIC MATERIALS

See **INSULATION PARTS**
Plastic Insulation Parts—Extruded

FABRICATORS OF PLASTIC MATERIALS

See **INSULATION PARTS**
Plastic Insulation Parts—Fabricated

EYELETS

American Brass Co., 414 Meadow St., Waterbury 20, Conn.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfgs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
Continental Felt Co., 22 W. 15th St., New York 11, N. Y.
Eyelet Tool Co., Inc., 236A Broadway, Cambridge 42, Mass.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.
Goe Engineering Co., 219 S. Mednik Ave., Los Angeles 22, Calif.
GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 86, 87.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 664.
Metrop, Inc., R. I., 230 Toronto Ave., Providence, R. I.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 670.
Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
Scovill Manufacturing Co., Waterbury 20, Conn.
Segal, Edward, 72 Spring St., New York 12, N. Y.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brooklyn 5, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
UNITED-CARR FASTENER CORP., Cambridge 42, Mass. ADV. PG. 64.
United Shoe Machinery Corp., 140 Federal St., Boston 7, Mass.
Waterbury Companies, Inc., Waterbury 20, Conn.
Waterbury Pressed Metal Co., P-M Nut Div., 300 Chase Ave., Waterbury 14, Conn.

FABRIC

See **INSULATION MATERIALS**

FACSIMILE

See **RECORDERS—Facsimile**

FACSIMILE RECORDING PAPERS

See **RECORDERS—Facsimile**

FANS—Cooling

See **BLOWERS—Small**

FASTENERS & FASTENING DEVICES

Ackerman-Johnson Co., 625 W. Jackson Blvd., Chicago 6, Ill.
Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
American Brass Co., 414 Meadow St., Waterbury 20, Conn.
American Screw Co., Willimantic, Conn.
Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
Autoscrew Co., 216-222 W. 18th St., New York, N. Y.

Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.
Boots Aircraft Nut Corp., Newton Ave., Norwalk, Conn.
Bristol Co., The, P.O. Box 1790 EBG, Waterbury 20, Conn.
BURNDY CORPORATION, Norwalk, Conn. ADV. PG. 441.
Camcar Screw & Mfg. Co., Div. of Tectron Inc., 600 18th Ave., Rockford, Ill.
CAMLOC FASTENER CORP., 22 Spring-Valley Rd., Paramus, N. J. ADV. PG. 241.
Central Screw Co., 1501 Shields Ave., Chicago 9, Ill.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Chicago Expansion Bolt Co., 1338 W. Concord Place, Chicago 22, Ill.
Chicago Rivet & Machine Co., Bellwood, Ill.
Chicago Screw Co., The, Bellwood, Ill.
CINCH MFG. CO., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
Derringer Metallurgical Corp., 8127 Monticello Ave., Skokie, Ill.
DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. ADV. PG. 638.
Dzus Fastener Co., Inc., Box 185, Babylon, N. Y.
Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S.E., Massillon, Ohio.
Elastic Stop Nut Corp., 2330 Vauxhall Rd., Union, N. J.
Exacto Industries, Inc., 8730-36 Santa Monica Blvd., Los Angeles 46, Calif.
Eyelet Tool Co., Inc., 236A Broadway, Cambridge 42, Mass.
Fasteners, Inc., 580 Fifth Ave., New York 36, N. Y.
Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
General Tire & Rubber Co., Akron, Ohio.
Goodrich Aviation Products, B. F., Div. of B. F. Goodrich Co., Akron, Ohio.
Greer Stop Nut Co., 2620 W. Fluoroy St., Chicago 12, Ill.
GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
Groov-Pin Corp., 1125 Hendricks Causeway, Ridgefield, N. J.
Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
Hassell, Inc., John, P. O. Box 2242, Westbury, N. Y.
Heli-Coil Corp., Shelter Rock Rd., Danbury, Conn.
Holub Industries, Inc., 414 DeKalb Ave., Sycamore, Ill.
Huck Mfg. Co., 2480 Bellevue Ave., Detroit 7, Mich.
Industrial Retaining Ring Co., 57 Cordier St., Irvington 11, N. J.
Irwin Products, 6312 N. Artesian Ave., Chicago 45, Ill.
Jacobson Nut Mfg. Corp., Market St., Kenilworth 2, N. J.
Lion Fastener, Inc., c/o Southco, Lester, Pa.
Morris Co., J. I., Southbridge, Mass.
National Screw & Mfg. Co., The, Cleveland 4, Ohio.
Newcomb Spring Corp., The, 177 E. Hawthorne Ave., Valley Stream, N. Y.
NIELSEN HARDWARE CORP., 770 Wethersfield Ave., Hartford 14, Conn. ADV. PG. 539.
Nugent Electronics Co., New Albany, Ind.
Nylok Corp., The, 611 Industrial Ave., Paramus, N. J.
Nylite Corp. of America, 2331 Morris Ave., Union, N. J.
Palnut Co., The, 77 Glen Rd., Mountainside, N. J.
Parker-Kalon Division of General American Transportation Corp., Clifton, N. J.
Penn Engineering & Mfg. Corp., Box 311, Doylestown, Pa.
Pheoll Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Rosan Inc., 2901 West Coast Highway, Newport Beach, Calif.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Scovill Manufacturing Co., Waterbury 20, Conn.
Set Screw Mfg. Co., 470 Main St., Bartlett, Ill.
Shakeproof, Div. of Illinois Tool Works, St. Charles Rd., Elgin, Ill.
Simmonds Aerocessories, Inc., Tarrytown, N. Y.
Simmons Fastener Corp., 1752 N. Broadway, Albany 1, N. Y.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
SOUTHCO DIVISION, SOUTH CHESTER CORP., 233 Industrial Highway, Lester, Pa. ADV. PG. 254.
Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.
STAR EXPANSION PRODUCTS CO., INC., 142 Liberty St., New York 6, N. Y. ADV. PG. 588.
Star Stainless Screw Co., 655 Union Blvd., Totowa, N. J.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brooklyn 5, N. Y.
Thompson-Bremer & Co., 520 N. Dearborn, Chicago 10, Ill.
Tinnerman Products, Inc., P. O. Box 6688, Dept. No. 16, Cleveland 1, Ohio.
Torrington Co., 59 Field St., Torrington, Conn.
Tubular Rivet & Stud Co., Weston Ave., Wollaston (Quincy) 70, Mass.
UNITED-CARR FASTENER CORP., Cambridge 42, Mass. ADV. PG. 64.
United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.

United Shoe Machinery Corp., 140 Federal St., Boston 7, Mass.
Vibrex Fastener Corp., Mount Kisco, N. Y.
Walco Kohinor Inc., 47-16 Austel Place, Long Island City 1, N. Y.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
Waterbury Pressed Metal Co., P-M Nut Div., 300 Chase Ave., Waterbury 14, Conn.
Weckesser Co., 5701 Northwest Highway, Chicago 50, Ill.

FELT & FELT PARTS

American Felt Co., Glenville, Conn.
Armstrong Cork Co., Lancaster, Pa.
Auburn Mfg. Co., The Pease Ave. & Stack St., Middletown, Conn.
Boston Felt Co., 210 South St., Boston 11, Mass.
Brady Co., W. H., 727 W. Glendale Ave., Milwaukee 12, Wis.
Continental Felt Co., 22 W. 15th St., New York 11, N. Y.
Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
Felters Co., 210 South St., Boston, Mass.
Mechanical Felt & Textiles Co., 50 W. 18th St., Weehawken, N. J.
National Felt Co., 76 Summer St., Boston 10, Mass.
Quaker City Felt Co., 1734 Ludlow St., Philadelphia 3, Pa.
Standard Felt Co., 29 S. Palm Ave., Alhambra, Calif.
Supreme Industrial Products Co., 367 N. Karlov Ave., Chicago 24, Ill.
Western Felt Works, 4029 Ogden Ave., Chicago, Ill.

FERRITES

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
COLUMBIAN CARBON CO., MAPICO COLOR UNIT, 380 Madison Ave., New York 17, N. Y. ADV. PG. 667.
Crowley Div. of Aerovox Corp., 1 Central Ave., West Orange, N. J.
Ferroxcube Corp. of America, 125 E. Bridge St., Saugerties, N. Y.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 100.
Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass.
Stackpole Carbon Co., St. Marys, Pa.
Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
Yale & Towne Mfg. Co., Powdered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.

FILMS—Capacitor

AMP INC., 2100 Paxton St., Harrisburg, Pa. ADV. PG. 339.
AMP INC., CHEMICALS & DIELECTRICS DIV., 155 Park St., Elizabethtown, Pa. ADV. PG. 255.
Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
Bonny Mfg. Corp., 339 Auburn St., Auburndale, Mass.
DILECTRIX CORP., Allen Blvd. & Grant Ave., Farmingdale, N. Y. ADV. PG. 616.
Ford Radio & Mica Corp., 538 63rd St., Brooklyn 20, N. Y.
Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
Mica Insulator Co., Schenectady 1, N. Y.
National Capacitor Co., 18 Webster St., Brookline, Mass.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 568.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
RELANCE MICA CO., INC., 341 39th St., Brooklyn 32, N. Y. ADV. PG. 695.

FILMS—Plastic for Wound Insulation

Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
Bonny Mfg. Corp., 339 Auburn St., Auburndale, Mass.
Celanese Corp. of America, Plastics Div., 290 Ferry St., Newark 5, N. J.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Gering Products, Inc., N. Seventh St. at Monroe Ave., Kenilworth, N. J.
National Capacitor Co., 18 Webster St., Brookline, Mass.
New England Tape Co., Hudson, Mass.
Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
Polyken Sales Div. of The Kendall Co., 309 W. Jackson Blvd., Chicago 6, Ill.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
Silicones Div., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
Tri-Point Plastics, Inc., 177 I.U. Willets Rd., Alberton, N. Y.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni, Pa. ADV. PG. 557.

FILTERS—Antenna

Admittance-Namco Corp., Farmingdale, N. Y.
Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
Balco Research Laboratories, 49-53 Edison Place, Newark 2, N. J.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
Channel Master Co., Ellenville, N. Y.
Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J.
General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
Grallen Electronic Div. of Clegg, Inc., Hanover & Ridge-dale Aves., Morristown, N. J.
Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill.
Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles 7, Calif.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Johnson Co., E. F. Waseca, Minn.
Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
Production Research Corp., Thornwood, N. Y.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.
Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
Ta-Mar, Inc., 11571 W. Jefferson Blvd., Culver City, Calif.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
Victor R.F. & Microwave Co., 36 W. Water St., Wakefield, Mass.

FILTERS—Band Elimination

Admittance-Namco Corp., Farmingdale, N. Y.
Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.
American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.

Audio Development Co., 2833 13th Ave., S. Minneapolis 7, Minn.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 1, Mass. ADV. PG. 537.
Balco Research Laboratories, 49-53 Edison Place, Newark 2, N. J.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Basler Electric Co., 605 Fifth St., Highland, Ill.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 50.
Central Transformer Co., 910 W. Jackson Blvd., Chicago 11, Ill.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 Armitage Ave., Chicago 47, Ill. ADV. PG. 470.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
D & R LTD., 402 E. Gutierrez St., P. O. Box 150, Santa Barbara, Calif. ADV. PG. 698.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
DeCoursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
Dielectric Products Engineering Co., Inc., Raymond, Maine.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
Dubrow Development Co., 235B Penn St., Burlington, N. J.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J.
Grallen Electronic Div. of Clegg, Inc., Hanover & Ridge-dale Aves., Morristown, N. J.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 410.
HYCON EASTERN, INC., Dept. EBG, 75 Cambridge Parkway, Cambridge, Mass. ADV. PG. 400, 401.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 11.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
KROHN-HITE CORP., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 82, 83.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
Lesz, Via Bergamo 21, Milan, Italy.
LING ELECTRONICS, INC., 5120 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
Lynch Carrier Systems, Inc., 695 Bryant St., San Francisco 7, Calif.
Magnadyne Co., 84 S. Water St., Port Chester, N. Y.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
Marine Electric Co., 600 Fourth Ave., Brooklyn 1, N. Y.
MICAMOLD ELECTRONICS MFG. CORP., 1087 Flushing Ave., Brooklyn 6, N. Y. ADV. PG. 301.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
MICROTRAN CO., INC., 145 E. Mineola Ave., Valhalla, N. Y. ADV. PG. 646.
Microwave Development Labs., Inc., 92 Broad St., Boston Park 57, Mass.
Miller Co., J. W. 5917 S. Main St., Los Angeles 3, Calif.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
National Capacitor Co., 18 Webster St., Brookline, Mass.
New York Transformer Co., Inc., Third Ave., Albany, N. J.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
POLYPHASE INSTRUMENT CO., East Fourth Bridgeport, Penna. ADV. PG. 697.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607.

SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
STANDARD CRYSTAL CO., 1714 Locust St., Kansas City 8, Mo. ADV. PG. 558.
Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
Tech Laboratories, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
Televiso Corp., 1415 Golf Rd., Des Plaines, Ill.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.
TOROTEL, INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539.
Transformer Engineers, 161 E. California, Pasadena 1, Calif.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24.
Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
WHITE INSTRUMENT LABORATORIES, Box 9006, Allandale Station, Austin 17, Texas. ADV. PG. 501.

FILTERS—Band Pass

Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
Admittance-Namco Corp., Farmingdale, N. Y.
Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AEROVOX CORP., PACIFIC COAST DIV., 2724 So. Peck Rd., Monrovia, Calif. ADV. PG. 688.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.
Aladdin Electronics, A Div. of Aladdin Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
Allison Laboratories, Inc., 14185 Skyline Drive, Puente, Calif.
American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
ASTRON CORP., 255 Grant Ave., East Newark, N. J. ADV. PG. 329.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
Balco Research Laboratories, 49-53 Edison Place, Newark 2, N. J.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Basler Electric Co., 605 Fifth St., Highland, Ill.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 50.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill.
Channel Master Co., Ellenville, N. Y.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
CHICAGO STANDARD TRANSFORMER CORP., 3521 Addison St., Chicago, Ill. ADV. PG. 466, 467.
Cinema-Television, Ltd., Worsley Bridge Rd., London S.E. 26, England.
Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
Collins Radio Co., Cedar Rapids, Iowa.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
Community Engineering Corp., Box 824, State College, Pa.

CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
D & R LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. ADV. PG. 698.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
Dielectric Products Engineering Co., Inc., Raymond, Maine.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
Dubrow Development Co., 235 B Penn St., Burlington, N. J.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
Electro-Mechanical Research, Inc., Ridgefield, N. J.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn, 17, N. Y. ADV. PG. 674.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 233-235.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio.
FRED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J.
General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Grallen Electronic Div. of Clegg, Inc., Hanover & Ridge-dale Aves., Morristown, N. J.
Gray & Kuhn, Inc., 20 Railroad Ave., Roslyn Heights, N. Y.
Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 410.
Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
HYCON EASTERN, INC., Dept. EBG, 75 Cambridge Parkway, Cambridge, Mass. ADV. PG. 400, 401.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 188.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. ADV. PG. 574.
Johnson Co., E. F., Waseca, Minn.
Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
Keystone Products Co., 904-6 23rd St., Union City, N. J.
KROHN-HITE CORP., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 82, 83.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
Les, Via Bergamo 21, Milan, Italy.
LING ELECTRONICS, INC., 5170 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
Lynch Carrier Systems, Inc., 695 Bryant St., San Francisco 7, Calif.
Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
Magnadyne Co., 84 S. Water St., Port Chester, N. Y.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
MICAMOLD ELECTRONICS MFG. CORP., 1087 Flushing Ave., Brooklyn 6, N. Y. ADV. PG. 301.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
Microwave Development Labs., Inc., 92 Broad St., Babson Park 57, Mass.
Mid-West Coil & Transformer Co., 1642 N. Halstead St., Chicago 14, Ill.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
National Capacitor Co., 18 Webster St., Brookline, Mass.

NATIONAL COIL CO., P.O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
New York Transformer Co., Inc., Third Ave., Alpha, N. J.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
POLAROID ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607.
Pulse Techniques, Inc., 1411 Palisades Ave., West Englewood, N. J.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 555.
Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
Spectrum Instruments, Inc., 44-05 30th Ave., Long Island City 3, N. Y.
SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
STANDARD CRYSTAL CO., 1714 Locust St., Kansas City 8, Mo. ADV. PG. 558.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
Tech Laboratories, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Televiso Corp., 1415 Golf Rd., Des Plaines, Ill.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PAGE 645.
TOROTEL, INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405.
Transformer Engineers, 161 E. California, Pasadena 1, Calif.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24.
Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa.
Western Electro-Acoustic Lab., 11789 San Vicente Blvd., Los Angeles 49, Calif.
WHITE INSTRUMENT LABORATORIES, Box 9006, Allandale Station, Austin 17, Texas. ADV. PG. 501.

FILTERS—Continuously Variable

Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
Allison Laboratories, Inc., 14185 Skyline Drive, Puente, Calif.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
Defiance Engineering Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
Electro-Mechanical Research Inc., Ridgefield, Conn.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
General Apparatus Co., 1344-6 E. 32nd St., New York 16, N. Y.
International Research & Development Corp., 769 Thomas Lane, P. O. Box 1707, Columbus 16, Ohio.
KROHN-HITE CORP., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 82, 83.
LING ELECTRONICS, INC., 5170 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.

FILTERS

NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
Spectrum Instruments, Inc., 44-05 30th Ave., Long Island City 3, N. Y.
SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.

FILTERS—Crystal

American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
BLILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 178, 179.
BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
Hill Electronic Engineering & Mfg. Co., Inc., New Kingstown, Pa.
HYCON EASTERN, INC., Dept. EBG, 75 Cambridge Parkway, Cambridge, Mass. ADV. PG. 400, 401.
Hyon Electronics, Inc., P. O. Bin D, Pasadena, Calif.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 521.
Lewis Co., Inc., E.B., 11 Bragg St., East Hartford 8, Conn.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.
SCIENTIFIC RADIO PRODUCTS, INC., 215 S. 11th, Omaha, Neb. ADV. PG. 657.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
STANDARD CRYSTAL CO., 1714 Locust St., Kansas City 8, Mo. ADV. PG. 558.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

FILTERS—Detonation

FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.

FILTERS—Electric Wave Section

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
CHICAGO STANDARD TRANSFORMER CORP., 3521 Addison St., Chicago, Ill. ADV. PG. 466, 467.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HERMETIC SEAL TRANSFORMER CO., 555 N. Fifth St., Garland, Texas. ADV. PG. 410.
Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 369, 370.
National Capacitor Co., 18 Webster St., Brookline, Mass.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607.

TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
WHITE INSTRUMENT LABORATORIES, Box 9006, Alhambra Station, Austin 17, Texas. ADV. PG. 501.

FILTERS—Equalizer

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
Central Transformer Co., 910 W. Jackson Ave., Chicago, Ill.
CINEMA ENGINEERING DIV. OF AEROVOX CORP., 1100 Chestnut St., Burbank, Calif. ADV. PG. 688.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 674.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
Fisher Radio Corp., 21-21 Forty Fourth Drive, Long Island City 1, N. Y.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
Gray Research & Development Co., Inc., 685 Hilliard St., Manchester, Conn.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 410.
Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
LING ELECTRONICS, INC., 5120 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
National Capacitor Co., 18 Webster St., Brookline, Mass.
New York Transformer Co., Inc., Third Ave., Alpha, N. J.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607.
Pulse Techniques, Inc., 1411 Palisade Ave., West Englewood, N. J.
SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405.
Tranconic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

FILTERS—High Pass

Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.
Admittance-Namco Corp., Farmingdale, N. Y.
Aerocoll, Inc., 24 Cliff St., Jersey City, N. J.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AEROVOX CORP., PACIFIC COAST DIV., 2724 So. Peck Rd., Monrovia, Calif. ADV. PG. 688.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.
Allison Laboratories, Inc., 14185 Skyline Drive, Puente, Calif.
American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.

American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
Balco Research Laboratories, 49-53 Edison Place, Newark 2, N. J.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Basler Electric Co., 605 Fifth St., Highland, Ill.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 50.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
CHICAGO STANDARD TRANSFORMER CORP., 3521 Addison St., Chicago, Ill. ADV. PG. 466, 467.
Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
D & R LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. ADV. PG. 698.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
Dubrow Development Co., 235B Penn St., Burlington, N. J.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
Electron Products, Inc., 430 N. Halstead St., Pasadena, Calif.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 674.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J.
Gates Radio Co., Quincy, Ill.
General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Grallen Electronic Div. of Clegg, Inc., Hanover & Ridgedale Aves., Morristown, N. J.
Gray & Kuhn, Inc., 20 Railroad Ave., Roslyn Heights, N. Y.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 410.
Hill Electronic Engineering & Mfg. Co., Inc., New Kingstown, Pa.
HYCON DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 188.
I.D.E.A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
INDUSTRIAL TRANSFORMER CORP., Gouldboro, Pa. ADV. PG. 454, 455.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
International Electronics Corp., (Mueller Equipment), 81 Spring St., New York 12, N. Y.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.

KROHN-HITE CORP., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 82, 83.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
 Lesa, Via Bergamo 21, Milan, Italy.
Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
Lynch Carrier Systems, Inc., 695 Bryant St., San Francisco 7, Calif.
Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
MB MFG. DIV. OF TEXTRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 552.
Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
MICAMOLD ELECTRONICS MFG. CORP., 1087 Flushing Ave., Brooklyn 6, N. Y. ADV. PG. 301.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
MICROPHASE CORP., P.O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
Microwave Development Labs., Inc., 92 Broad St., Babson Park 57, Mass.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
MULLARD OVERSEAS LTD., Equipment Div., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 560.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
National Capacitor Co., 18 Webster St., Brookline, Mass.
New York Transformer Co., Inc., Third Ave., Alpha, N. J.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 268.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607.
Pulse Technique, Inc., 1411 Palisade Ave., West Englewood, N. J.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 555.
Spectrum Instruments, Inc., 44-05 30th Ave., Long Island City 3, N. Y.
SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
Tech Laboratories, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W. 3, England.
Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 535.
Tevisco Corp., 1415 Golf Rd., Des Plaines, Ill.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.
TOROTEL, INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405.
Transformer Engineers, 161 E. California, Pasadena 1, Calif.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24.
Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.

Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa.
WHITE INSTRUMENT LABORATORIES, Box 9006, Ailandale Station, Austin 17, Texas. ADV. PG. 501.

FILTERS—Lighting (for Radio Towers)

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
Gates Radio Co., Quincy, Ill.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

FILTERS—Low Pass

Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
Admittance-Namco Corp., Farmingdale, N. Y.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AEROVOX CORP., PACIFIC COAST DIV., 2724 So. Peck Rd., Monrovia, Calif. ADV. PG. 688.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AirDesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.
Allison Laboratories, Inc., 14185 Skyline Drive, Puente, Calif.
American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
ASTRON CORP., 255 Grant Ave., East Newark, N. J. ADV. PG. 329.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
Balco Research Laboratories, 49-53 Edison Place, Newark 2, N. J.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Basler Electric Co., 605 Fifth St., Highland, Ill.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 50.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
CHICAGO STANDARD TRANSFORMER CORP., 3521 Addison St., Chicago, Ill. ADV. PG. 466, 467.
Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
D & R LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. ADV. PG. 698.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
Dielectric Products Engineering Co., Inc., Raymond, Maine.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
Double "E" Products Co., 216 Standard St., El Segundo, Calif.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
Electro-Mechanical Research Inc., Ridgefield, Conn.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.
EPSCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 674.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 233-235.

ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
Essex Electronics, Berkeley Heights, N. J.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio.
FRED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J.
Gates Radio Co., Quincy, Ill.
General Coil Products Corp., 43 Rosele St., Mineola, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Grallen Electronic Div. of Clegg, Inc., Hanover & Ridgedale Aves., Morristown, N. J.
Gray & Kuhn, Inc., 20 Railroad Ave., Roslyn Heights, N. Y.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 410.
Hill Electronic Engineering & Mfg. Co., Inc., New Kingstown, Pa.
Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
Hopkins Engineering Co., 12900 Foothill Blvd., San Fernando, Calif.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 188.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Johnson Co., E. F., Waseca, Minn.
Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
Keystone Products Co., 904-6 23rd St., Union City, N. J.
KROHN-HITE CORP., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 82, 83.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
 Lesa, Via Bergamo 21, Milan, Italy.
LING ELECTRONICS, INC., 5120 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
Lynch Carrier Systems, Inc., 695 Bryant St., San Francisco 7, Calif.
Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
Magnadyne Corp., 84 S. Water St., Port Chester, N. Y.
MICAMOLD ELECTRONICS MFG. CORP., 1087 Flushing Ave., Brooklyn 6, N. Y. ADV. PG. 301.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
Microwave Development Labs., Inc., 92 Broad St., Babson Park 57, Mass.
Mid-West Coil & Transformer Co., 1642 N. Halstead St., Chicago 14, Ill.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W.C. 2, England. ADV. PG. 560.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 369, 370.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
National Capacitor Co., 18 Webster St., Brookline, Mass.
New York Transformer Co., Inc., Third Ave., Alpha, N. J.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 268.
POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
Potter Co., The, 1950 Sheridan Rd., North Chicago, Ill.
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607.
Palmer, Inc., M.V., 4002 Fruit Valley Rd., Vancouver, Wash.
Pulse Techniques, Inc., 1411 Palisades Ave., West Englewood, N. J.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 555.
Servonics, Inc., 822 N. Henry St., Alexandria, Va.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
Spectrum Instruments, Inc., 44-05 30th Ave., Long Island City 3, N. Y.
SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
Tech Laboratories, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton London W.E., England.
Televiso Corp., 1415 Golf Rd., Des Plaines, Ill.
TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 535.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.
TOROTEL, INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24.
Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
UNIWAFF, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa.
WHITE INSTRUMENT LABORATORIES, Box 9006, Alandale Station, Austin 17, Texas. ADV. PG. 501.

FILTERS—Microwave
See MICROWAVE ACCESSORIES

FILTERS—Needle Scratch

Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
Axel Bros., Electronics Div., 134-20 Jamaica Ave., Jamaica, N. Y.
Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
Fisher Radio Corp., 21-21 Forty Fourth Drive, Long Island City 1, N. Y.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MICAMOLD ELECTRONICS MFG. CORP., 1087 Flushing Ave., Brooklyn 6, N. Y. ADV. PG. 301.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
Pulse Techniques Inc., 1411 Palisade Ave., West Englewood N. J.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

FILTERS—Radio Interference

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AEROVOX CORP., PACIFIC COAST DIV., 2724 So. Peck Rd., Monrovia, Calif. ADV. PG. 688.
Airborne Accessories Corp., 1414 Chestnut Ave., Hillside, N. J.
All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
ASTRON CORP., 255 Grant Ave., East Newark, N. J. ADV. PG. 329.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
.DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
Double "E" Products Co., 216 Standard St., El Segundo, Calif.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
Electron Products, Inc., 430 N. Halstead St., Pasadena, Calif.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
Erdco Engineering Corp., Addison, Ill.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
Grallen Electronic Div. of Clegg, Inc., Hanover & Ridge-dale Aves., Morristown, N. J.

Gudeman Co., 340 W. Huron St., Chicago 10, Ill.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 410.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
Hopkins Engineering Co., 12900 Foothill Blvd., San Fernando, Calif.
Interference Measurement Lab., Inc., 907 E. 51st St., Brooklyn 3, N. Y.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
Learly Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
MICAMOLD ELECTRONICS MFG. CORP., 1087 Flushing Ave., Brooklyn 6, N. Y. ADV. PG. 301.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
National Capacitor Co., 18 Webster St., Brookline, Mass.
NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.
Potter Co., The, 1950 Sheridan Rd., North Chicago, Ill.
PYRAMID ELECTRIC CO., 1445 Hudson Blvd., North Bergen, N. J. ADV. PG. 463.
Sage-Craft, Inc., Norwich, N. Y.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
Sprague Electric Co., 125 Marshall St., North Adams, Mass.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W.C. 2, England.
Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W.E., England.
Televiso Corp., 1415 Golf Rd., Des Plaines, Ill.
TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

FILTERS—Radio Range

APPLIED RESEARCH, INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BURNELL & CO., Inc., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio.
Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.
Potter Co., The, 1950 Sheridan Rd., North Chicago, Ill.
Sage-Craft, Inc., Norwich, N. Y.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

FILTERS—Television

APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
Channel Master Co., Ellenville, N. Y.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
Community Engineering Corp., Box 824, State College, Pa.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.

DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Eastman Kodak Co., 343 State St., Rochester 4, N. Y.
Entron Inc., 4902 Lawrence St., Bladensburg, Md.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
Grallen Electronic Div. of Clegg, Inc., Hanover & Ridge-dale Aves., Morristown, N. J.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
Potter Co., The, 1950 Sheridan Rd., North Chicago, Ill.
Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
Sage-Craft, Inc., Norwich, N. Y.
SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W.E., England.
Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.
Walco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.

FILTERS—uhf & vhf

Admittance-Namco Corp., Farmingdale, N. Y.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AEROVOX CORP., PACIFIC COAST DIV., 2724 So. Peck Rd., Monrovia, Calif. ADV. PG. 688.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
Collins Radio Co., Cedar Rapids, Iowa.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Defance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Grallen Electronic Div. of Clegg, Inc., Hanover & Ridge-dale Aves., Morristown, N. J.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.

ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.

Sage-Craft, Inc., Norwich, N. Y.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.

SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.

Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.

TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.

Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.

FILTERS—Variable Electronic

Electro-Mechanical Research Inc., Ridgefield, Conn.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.

Interstate Electronics Div. of Interstate Engineering Corp., 875 S. East St., Anaheim, Calif.

MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 560.

FINISHES—Crystal

George Co., P. D., 5200 N. Second St., St. Louis, Mo.
Maas & Waldstein Co., 2121 McCarter Highway, Newark 4, N. J.

FINISHES—Luminous Materials

CANADIAN RADIUM & URANIUM CORP., 630 Fifth Ave., New York 20, N. Y. ADV. PG. 665.

du Pont de Nemours & Co., Inc., E. 1, Wilmington 98, Del.

George Co., P. D., 5200 N. Second St., St. Louis, Mo.

Maas & Waldstein Co., 2121 McCarter Highway, Newark 4, N. J.

Photo Chemical Products, Inc., 999A Stewart Ave., Garden City, N. Y.

Supreme Process Corp., 44 Bond St., Westbury, N. Y.

U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.

FINISHES—Ripple

George Co., P. D., 5200 N. Second St., St. Louis, Mo.
Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.

Maas & Waldstein Co., 2121 McCarter Highway, Newark 4, N. J.

Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.

Supreme Process Corp., 44 Bond St., Westbury, N. Y.

Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

FIRE

See DETECTORS

FLANGES—Microwave

See MICROWAVE ACCESSORIES

FLOCK & FLOCKED PAPER

Celluluede Products, Inc., 540 N. Madison St., Rockford, Ill.

Flock Process Co., Inc., 373 Main Ave., Norwalk, Conn.

Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

FLOWMETERS

See CONTROLS

FLUID FLOW

See INDICATORS

FLUORESCENT COMPOUNDS—Phosphors

Associated Engineering & Mfg. Co., Glen Ridge, N. J.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.

CANADIAN RADIUM & URANIUM CORP., 630 Fifth Ave., New York 20, N. Y. ADV. PG. 665.

du Pont de Nemours & Co., Inc., E. 1, Wilmington 98, Del.

General Electric Co., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.

Photo Chemical Products, Inc., 999A Stewart Ave., Garden City, N. Y.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.

VOLTARC TUBES, INC., 44 Cross St., Norwalk, Conn. ADV. PG. 699.

FLUOROMETERS

Coleman Instruments, Inc., 318 Madison St., Maywood, Ill.

Farrand Optical Co., Inc., Bronx Blvd., at 238th St., New York 70, N. Y.

Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.

Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo.

Photovolt Corp., 95 Madison Ave., New York 16, N. Y.

FLUX—Brazing or Soldering

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.

All-State Welding Alloys Co., Inc., 249 Ferris Ave., White Plains, N. Y.

Allen Co., Inc., L. B., 6751 Bryn Mawr Ave., Chicago 31, Ill.

Alpha Metals, Inc., 60 Water St., Jersey City, N. J.

American Platinum Works, N. J., R. R. Ave. at Oliver St., Newark 5, N. J.

American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.

American Solder & Flux Co., 19th & Willard Sts., Philadelphia 40, Pa.

ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.

Bow Solder Products Co., Inc., 251 Freeman St., Brooklyn 22, N. Y.

Burnley Battery & Mfg. Co., Clay St., North East, Pa.

Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.

Division Lead Co., 7742 W. 61st Place, Summit, Ill.

Dunton Co., M. W., 7 Goff St., Providence 3, R. I.

duPont de Nemours & Co., Inc., E. 1, Wilmington 98, Del.

Ellanar Chemical Co., 2308 Oakton St., Evanston, Ill.

Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.

Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.

Goldsmith Bros. Smelting Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.

HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 328.

International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.

Johnson Mfg. Co., Inc., Mount Vernon, Iowa.

KESTER SOLDER COMPANY, 4212 Wrightwood Ave., Chicago 39, Ill. ADV. PG. 435.

Lake Chemical Co., 3052 W. Carroll St., Chicago 12, Ill.

LINDE AIR PRODUCTS CO., DIV. OF UNION CARBIDE & CARBON CORP., 30 E. 42nd St., New York 17, N. Y. ADV. PG. 636.

London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.

MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.

MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 522.

Multicore Solders, Ltd., Multicore Works, Maylands Ave., Hemel Hempstead, Hertfordshire, England.

National Lead Co., 111 Broadway, New York 6, N. Y.

Osborn Products, Glen Ellyn, Ill.

Ruby Chemical Co., 68 McDowell St., Columbus 16, Ohio.

Soldering Specialties Co., 18 Chatham Rd., Summit, N. J.

Superior Flux & Mfg. Co., 1302 Ontario St., Cleveland 13, Ohio.

Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.

United Wire & Supply Corp., Providence 7, R. I.

FLUXMETERS

Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.

DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Howe International, 431 Danfort, Dept. E-7, Jersey City 5, N. J.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.

Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.

Pimex Inc., 18 E. 60th St., New York 22, N. Y.

RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.

Republic Electronic Industries Corp., 31 W. 27th St., New York 1, N. Y.

Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.

FOCUS COILS

See COILS—Television Focusing

FORKS—Electrically Driven Tuning

Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.

AMERICAN TIME PRODUCTS, INC., 580 Fifth Ave., New York 36, N. Y. ADV. PG. 440.

Chatillon & Sons, John, 85 Cliff St., New York, N. Y.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.

Miller Instruments, Inc., William 325 N. Halstead Ave., Pasadena 8, Calif.

Muirhead & Co., Ltd., Beckenham, Kent, England.

PHILAMON LABORATORIES, INC., 90 Hopper St., Westbury, N. Y. ADV. PG. 95.

Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

VARO MFG. CO., INC., 2201 Walnut St., Garland, Tex. ADV. PG. 564.

Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

FORMS—Antenna

Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.

Isolantite Mfg. Corp., Stirling, N. J.

NORRICH PLASTICS CORP., 35 E. 32nd St., New York, N. Y. ADV. PG. 244.

Titchener & Co., E. H., 67 Clinton St., Binghamton, N. Y.

FORMS—Coil

See Also BOBBINS

ACCURATE PAPER TUBE CO., 801 N. Peoria St., Chicago 22, Ill. ADV. PG. 416.

ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.

AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.

AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 580.

ANCHOR INDUSTRIAL CO., DIV. OF ANCHOR PLASTICS CO., INC., 36-36 36th St., Long Island City 6, N. Y. ADV. PG. 613.

Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.

CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.

CLEVELAND CONTAINER CO., THE, 6201 Barborton Ave., Cleveland 2, Ohio. ADV. PG. 160.

Colber Corp., The 26 Buffington St., Irvington, N. J.

CONTINENTAL-DIAMOND FIBRE CORP., Newark 100, Delaware. ADV. PG. 345-348.

Coors Porcelain Co., 600 Ninth St., Golden, Colo.

CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.

EPM Corp., 570 Van Siclen Ave., Brooklyn, N. Y.

Electronic Service Corp., 2906 Birch St., Franklin Park, Ill.

Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.

Enffo Corp., Route 38 at Airport Circle, Pensauken, N. J.

Ferricore, Inc., 303 Railroad Place, Orange, N. J.

Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.

GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.

GRAYHILL, INC., 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 493.

GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.

HYDRO MOLDING CO., INC., Plattsburgh, N. Y. ADV. PG. 397.

Isolantite Mfg. Corp., Stirling, N. J.

Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.

Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.

LAMTEX INDUSTRIES, INC., 51 State St., Westbury, N. Y. ADV. PG. 596.

Micarta Fabricators Inc., 54 N. Clark St., Chicago 40, Ill.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.

Milman Engineering Co., 1831 Pontius, West Los Angeles, Calif.

NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.

National Co., Inc., 61 Sherman St., Malden 48, Mass.

NATIONAL MOLDFITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 100.

National Vulcanized Fibre Co., Wilmington, Del.

NORRICH PLASTICS CORP., 35 E. 32nd St., New York, N. Y. ADV. PG. 244.

NORTH HILLS ELECTRIC CO., INC., 402 Sagamore Ave., Mineola, N. Y. ADV. PG. 428.

PARAMOUNT PAPER TUBE CORP., 614 Lafayette St., Fort Wayne, Ind. ADV. PG. 554.

Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.

Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.

Pfeger Products, 3901 W. 54th St., Los Angeles 43, Calif.

PRECISION PAPER TUBE CO., 2641 W. Charleston St., Chicago 47, Ill. ADV. PG. 673.

Printloid, Inc., 93 Mercer St., New York 12, N. Y.

Quality Components, Inc., St. Marys, Pa.

Resinite Corp. Sub. of Precision Paper Tube Co., 6981 N. Central Park Ave., Chicago 45, (Lincolnwood), Ill.

CROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Silicone Insulation, Inc., 1385 Seabury Ave., Bronx 61, N. Y.

Speer Resistor Division, Speer Carbon Co., St. Marys, Pa. Stone Paper Tube Co., Inc., 900 Franklin St., N. E., Washington 17, D. C.
STUPAKOFF, DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 108, 109.

Suprex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.

SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 588.

SYNOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 589.

Synthane Corp., Oaks, Pa.
Taylor Fibre Co., Norristown, Pa.

Telex, Inc., Telex Park, St. Paul 1, Minn.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.

THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.

Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.

WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni, Pa. ADV. PG. 557.

FORMS—Resistor

AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.

Du-Co Ceramics Co., Box 587, Butler 8, Pa.
DESIGN TOOL CORP., 80 Washington St., New York 6, N. Y. ADV. PG. 678.

Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.

HAMILTON ELECTRONICS CORP., Box 100, Bath, N. Y. ADV. PG. 507.

Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.

NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 100.

NORRICH PLASTICS CORP., 35 E. 32nd St., New York, N. Y. ADV. PG. 244.

PRECISION PAPER TUBE CO., 2041 W. Charleston St., Chicago 47, Ill. ADV. PG. 673.

Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.

STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 108, 109.

SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 588.

Telex, Inc., Telex Park, St. Paul 1, Minn.

Speer Resistor Division, Speer Carbon Co., St. Marys, Pa.

FORMS—Wire

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.

Alloy Metal Wire Div. of H. K. Porter Co., Inc., Prospect Park, Pa.

DESIGN TOOL CORP., 80 Washington St., New York 6, N. Y. ADV. PG. 678.

Dudek & Bock Spring & Mfg. Co., 4018 W. Grand Ave., Chicago 51, Ill.

Eastern Tool & Mfg. Co., 1 Montgomery St., Belleville 9, N. J.

Exact Industries, Inc., 8730-36 Santa Monica Blvd., Los Angeles 46, Calif.

GENERAL FINDINGS & SUPPLY CO., INDUSTRIAL DIV., Attleboro, Mass. ADV. PG. 327.

Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.

Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.

Mid-West Spring Mfg. Co., Mentone, Ind.

Newcomb Spring Corp., 177 E. Hawthorne Ave., Valley Stream, N. Y.

NORRICH PLASTICS CORP., 35 E. 32nd St., New York, N. Y. ADV. PG. 244.

PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 670.

Quality Components, Inc., St. Marys, Pa.

Reliable Spring & Wire Forms Co., Fulton Rd. & Paris Ave., Cleveland 9, Ohio.

SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

Titchener & Co., E. H., 67 Clinton St., Binghamton, N. Y.

FRAMES—Grid

See PARTS for COLOR TV TUBES

FREQUENCY CALIBRATION SERVICES

AIRCORN INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.

AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.

COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.

DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.

Eldson Electronic Co., 1902 N. Third St., Temple, Tex.

ELECTROMATION CO., 1646 Eighteenth St., Santa Monica, Calif. ADV. PG. 692.

FREQUENCY STANDARDS, INC., P. O. Box 504, Asbury Park, N. J. ADV. PG. 578.

Lewis Co., Inc., E. 8, 11 Bragg St., East Hartford 8, Conn.

Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.

Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.

FREQUENCY INDICATORS

See INDICATORS

FREQUENCY STANDARDS

See STANDARDS—Frequency

FURNACES—Electric (for Electronic Component Production)

Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.

Despatch Oven Co., Minneapolis, Minn.

Electric Furnace Co., Salem, Ohio.

Forster-Teichmann Co., Clark Bldg., Pittsburgh 22, Pa.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Grieve-Hendry Co., Inc., 1401-17 W. Carroll Ave., Chicago 7, Ill.

HARPER ELECTRIC FURNACE CORP., 48 River St., Buffalo 2, N. Y. ADV. PG. 597.

Hayes Inc., C. I., 800 Wellington Ave., Cranston, R. I.

High Vacuum Equipment Corp., 2 Churchill Rd., Hingham, Mass.

Huppert Co., K. H., 6864 Cottage Grove Ave., Chicago 37, Ill.

KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.

Leeds & Northrup Co., 4970 Stanton Ave., Philadelphia 44, Pa.

Lepel High Frequency Labs., Inc., 55th St. & 7th Ave., Woodside 77, N. Y.

NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.

National Aircraft Corp., 3411 Tulare St., Burbank, Calif.

Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.

Pimex Inc., 18 E. 60th St., New York 22, N. Y.

SEMIMETALS, INC., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 673.

STEWART ENGINEERING CO., Box 277, Soquel, Calif. ADV. PG. 668, 669.

Stokes Co., F. J., 5500 Tabor Rd., Philadelphia 20, Pa.

Torrance Glass & Color Works, Torrance, Calif.

United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

Vacuum Equipment Div. of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

FURNACES—Gas Fired

American Gas Furnace Co., 130 Spring St., Elizabeth, N. J.

California Bent Glass Corp., Torrance, Calif.

Despatch Oven Co., Minneapolis, Minn.

Electric Furnace Co., Salem, Ohio.

Forster-Teichmann Co., Clark Bldg., Pittsburgh 22, Pa.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Grieve-Hendry Co., Inc., 1401-17 W. Carroll Ave., Chicago 7, Ill.

KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.

Leeds & Northrup Co., 4970 Stanton Ave., Philadelphia 44, Pa.

Lindberg Engineering Co., 2450 W. Hubbard St., Chicago, Ill.

Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.

SEMIMETALS, INC., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 673.

Steiner-Ives Co., Springfield Rd., Union, N. J.

Torrance Glass & Color Works, Torrance, Calif.

United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

FURNACES—High Frequency

EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.

Hayes Inc., C. I., 800 Wellington Ave., Cranston, R. I.

High Vacuum Equipment Corp., 2 Churchill Rd., Hingham, Mass.

Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.

Induction Heating Corp., 181 Wythe Ave., Brooklyn 11, N. Y.

International Pump & Machine Works, 81 Dorsa Ave., Livingston, N. J.

Lepel High Frequency Labs., Inc., 55th & 37th Ave., Woodside 77, N. Y.

Lindberg Engineering Co., 2450 W. Hubbard St., Chicago, Ill.

McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.

Mytron Mfg. Co., 4528 Brazil St., Los Angeles 39, Calif.

NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.

Ohio Crankshaft Co., Tocco Div., 3800 Harvard Ave., Cleveland 5, Ohio.

SEMIMETALS, INC., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 673.

Stokes Co., F. J., 5500 Tabor Rd., Philadelphia 20, Pa.

United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

Vacuum Equipment Div. of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.

FURNITURE—Electronic, Laboratory

See STOOLS & BENCHES for Work Assembly

FUSE HOLDERS

See BLOCKS

FUSES

Bel-Fuse, Inc., 311 Mountain Road, Union City, N. J.

British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.

BUSSMANN MFG. CO., St. Louis 7, Mo. ADV. PG. 60.

Chase-Shawmut Co., Box 390, Newburyport, Mass.

Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza S., Long Island City, N. Y.

Economy Fuse & Mfg. Co., 2717 Greenview Ave., Chicago 14, Ill.

GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

LITTELFUSE INC., Des Plaines, Ill. ADV. PG. 459.

Miller Electric Co., 120 Main St., Pawtucket, R. I.

Milwaukee Resistor Co., 700 W. Virginia St., Milwaukee 4, Wis.

O K Electronics Corp., 7 Hunt Place, Nutley, N. J.

Royal Electric Corp., Pawtucket, R. I.

Sightmaster Corp., 85 Beechwood Ave., New Rochelle, N. Y.

Trico Fuse Mfg. Co., 2948 N. Fifth, Milwaukee 12, Wis.

GAGES—Beta

AMERICAN TRADAIR CORP., SUB. OF EKCO ELECTRONICS, LTD., 34-01 30th St., Long Island City 6, N. Y. ADV. PG. 693.

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.

CURTIS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.

Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

Nucleonic Company of America, 196 DeGraw St., Brooklyn 31, N. Y.

Pratt & Whitney Co., Inc., Charter Oak Blvd., West Hartford 1, Conn.

Saratoga Scientific, P. O. Box 488, Saratoga, Calif.

Tracerlab, Inc., 1601 Trapelo Rd., Waltham 54, Mass.

X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

GAGES—Comparator

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.

Daytronic Corp., 216 S. Main St., Dayton, Ohio.

Link Aviation, Inc., Binghamton, N. Y.

Metron Instrument Co., 432 Lincoln St., Denver 3, Colo.

Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo.

Pratt & Whitney Co., Inc., Charter Oak Blvd., West Hartford 1, Conn.

Saratoga Scientific, P. O. Box 488, Saratoga, Calif.

Taft-Peirce Mfg. Co., The, Woonsocket, R. I.

GAGES—Displacement Measuring

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.

Daytronic Corp., 216 E. Main St., Dayton, Ohio.

Foxboro Co., The, Foxboro, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.

Link Aviation, Inc., Binghamton, N. Y.

Minatron Corp., 14 Cliveden Place, Belle Mead, N. J.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

Omega Instrument Co., Box 495M, Pasadena, Calif.

Optron Corp., 3526 State St., Santa Barbara, Calif.

Pratt & Whitney Co., Inc., Charter Oak Blvd., West Hartford 1, Conn.

Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.

Rockwell Engineering Co., 2125 E. 45th St., Indianapolis 5, Ind.
 Statham Laboratories, Inc., 12401 W. Olympic Blvd., Los Angeles 64, Calif.

GAGES—Electronic Fuel Indicator

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Liquidometer Corp., The, Skillman Ave. at 36th St., Long Island City 1, N. Y.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.
 WAUGH ENGINEERING CO., 7842 Burnet Ave., Van Nuys, Calif. ADV. PG. 663.

GAGES—Electronic Inspection

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 Branson Instruments, Inc., 1 Brown House Rd., Stamford, Conn.
 BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
 COOK CO., FRANK R., 36 S. Santa Fe Drive, Denver 23, Colo. ADV. PG. 480.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Dice Co., J. W. Englewood, N. J.
 Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Link Aviation, Inc., Binghamton, N. Y.
 Nuclear Research Corp., Southampton, Pa.
 Omega Instrument Co., Box 495M, Pasadena, Calif.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Pratt & Whitney Co., Inc., Charter Oak Blvd., West Hartford 1, Conn.
 Saratoga Scientific, P. O. Box 488, Saratoga, Calif.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 STAR EXPANSION PRODUCTS CO., INC., 142 Liberty St., New York 6, N. Y. ADV. PG. 588.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
 Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

GAGES—Electronic Spring Checking

Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Rockwell Engineering Co., 2125 E. 45th St., Indianapolis 5, Ind.

GAGES—Ionization

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 Central Electronic Manufacturers Inc., 2 Richwood Place, Denville, N. J.
 Consolidated Electrodynamics Corp., Rochester Div., Rochester 3, N. Y.
 CURTISS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
 EITEL-MCCULLOUGH, INC., San Bruno, Calif. ADV. PG. 128, 129.
 Electronic Research Labs., 85 Surrey St., Brighton 35, Mass.
 Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston, Mass.
 NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Research Electronics Laboratories, Roslyn, Pa.
 Servo-Recording Instruments, Inc., 1815 W. Van Buren, Phoenix, Ariz.
 SIERRA ELECTRONICS CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
 UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRANSISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. ADV. PG. 548.
 Vacuum Equipment Div. of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
 White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

GAGES—Paint Depth

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
 BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 427.
 Branson Instruments, Inc., 1 Brown House Rd., Stamford, Conn.
 CURTISS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
 Gardner Lab., Inc., 4723 Elm St., Bethesda 14, Md.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Unit Process Assemblies, Inc., 61 E. 4th St., New York 3, N. Y.

GAGES—Photoelectric Dimension

Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.
 Optron Corp., 3526 State St., Santa Barbara, Calif.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

GAGES—Pirani

Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Consolidated Electrodynamics Corp., Rochester Div., Rochester 3, N. Y.
 Electronic Research Labs., 85 Surrey St., Brighton 35, Mass.
 CONTINENTAL ELECTRIC CO., 6 N. Michigan Ave., Chicago 2, Ill. ADV. PG. 496.
 NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.

GAGES—Pressure, Electronic

Alfred Electronics, 897 Commercial St., Palo Alto, Calif.
 BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bendix Aviation Corp., Montrose Div., South Montrose, Pa.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Chesapeake Instrument Corp., Shadyside, Md.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Crescent Engineering & Research Co., 5540 N. Peck Rd., El Monte, Calif.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Electronic Research Labs., 85 Surrey St., Brighton 35, Mass.
 Endevco Corp., 161 E. California St., Pasadena, Calif.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Pa.
 GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
 Haslings-Raydist, Inc., Hampton 9, Va.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Kistler Instrument Corp., 15 Webster St., North Tonawanda, N. Y.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 8, Calif.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
 North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
 Omega Instrument Co., Box 495M, Pasadena, Calif.
 Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.
 Statham Laboratories, Inc., 12401 W. Olympic Blvd., Los Angeles 64, Calif.
 Ultradyne Engineering Labs., Inc., P. O. Box 8007, Albuquerque, N. M.

GAGES—Spring Tension

Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
 Endevco Corp., 161 E. California St., Pasadena, Calif.
 General Electric Co., Ltd. of England (Imtra Corp.), 58 Charles St., Cambridge, Mass.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
 Omega Instrument Co., Box 495M, Pasadena, Calif.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.

GAGES—Strain

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 American Instrument Co., Inc., 8030 Georgia Ave., Silver Springs, Md.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
 Crescent Engineering & Research Co., 5540 N. Peck Rd., El Monte, Calif.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
 Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
 Endevco Corp., 161 E. California St., Pasadena, Calif.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Hathaway Instrument Div., Hamilton Watch Co., 5800 E. Jewell Ave., Denver 22, Colo.
 KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Statham Laboratories, Inc., 12401 W. Olympic Blvd., Los Angeles 64, Calif.
 TRANS-SONICS, INC., P. O. Box 328, Lexington 73, Mass. ADV. PG. 525.

GAGES—Thickness, Electronic

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
 ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 CURTISS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
 Crescent Engineering & Research Co., 5540 N. Peck Rd., El Monte, Calif.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Dice Co., J. W., Englewood, N. J.
 Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Industrial Electronics Co., Inc., Hanover, Mass.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Nuclear Research Corp., Southampton, Pa.
 Optron Corp., 3526 State St., Santa Barbara, Calif.
 Philips Electronics, Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Pratt & Whitney Co., Inc., Charter Oak Blvd., West Hartford 1, Conn.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
 Unit Process Assemblies, Inc., 61 E. 4th St., New York 3, N. Y.
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

GAGES—Ultrasonic Thickness

Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
 Branson Instruments, Inc., 1 Brown House Rd., Stamford, Conn.
 Dice Co., J. W., Englewood, N. J.
 GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
 Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

GAGES—Vacuum

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Central Electronic Manufacturers Inc., 2 Richwood Place, Denville, N. J.
 Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Consolidated Electrodynamics Corp., Rochester Div., Rochester 3, N. Y.
 CONTINENTAL ELECTRIC CO., 6 N. Michigan Ave., Chicago 2, Ill. ADV. PG. 496.
 Electronic Research Labs., 85 Surrey St., Brighton 35, Mass.
 Foxboro Co., The, Foxboro, Mass.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
 Haslings-Raydist, Inc., Hampton 9, Va.
 High Vacuum Equipment Corp., 2 Churchill Rd., Hingham, Mass.
 International Pump & Machine Works, Inc., 81 Dorsa Ave., Livingston, N. J.
 Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston, Mass.

Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Omega Instrument Co., Box 495M, Pasadena, Calif.
Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
Research Electronics Laboratories, Roslyn, Pa.
Stokes Co., F. J., 5500 Tabor Rd., Philadelphia 20, Pa.
U. S. Gauge Div., American Machine & Metals, Inc., Sellersville, Pa.
Vacuum Equipment Div. of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.
Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.
Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

GALVANOMETERS
See INSTRUMENTS—Electrical Measuring

GASES—Nitrogen
BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
LINDE AIR PRODUCTS CO., DIVISION OF UNION CARBIDE AND CARBON CORP., 30 E. 42nd St., New York 17, N. Y. ADV. PG. 636.

GASES—Rare
LINDE AIR PRODUCTS CO., DIVISION OF UNION CARBIDE AND CARBON CORP., 30 E. 42nd St., New York 17, N. Y. ADV. PG. 636.
VOLTARC TUBES, INC., 44 Cross St., Norwalk, Conn. ADV. PG. 699.

GASKETS
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
American Felt Co., Glenville, Conn.
Armstrong Cork Co., Lancaster, Pa.
Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
BACON INDUSTRIES, INC., 192 Pleasant St., Water-Town, Mass. ADV. PG. 619.
Boston Felt Co., 210 South St., Boston 11, Mass.
Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorn, N. J.
CONNECTICUT HARD RUBBER CO., 407 East St., New Haven, Conn. ADV. PG. 646.
Continental Felt Co., 22 W. 15th St., New York 11, N. Y.
Dewey & Almy Chemical Co., Div. of W. R. Grace & Co., 62 Whittemore Ave., Cambridge 40, Mass.
Division Lead Co., 7742 W. 61st Place, Summit, Ill.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
Garlock Packing Co., The, Palmyra, N. Y.
Johns-Manville, 22 E. 40th St., New York 16, N. Y.
METAL TEXTILE CORP., 647 E. First Ave., Roselle, N. J. ADV. PG. 450.
Mica Insulator Co., Schenectady 1, N. Y.
National Vulcanized Fibre Co., Wilmington, Del.
Neosil Products Div. of Rubber Associates, Inc., 745 Fifth Ave., New York 22, N. Y.
Panelyte Div., St. Regis Paper Co., 261 Madison Ave., New York 16, N. Y.
Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 34, Pa.
Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
Raybestos-Manhattan, Inc., 61 Willett St., Passaic, N. J.
Rogers Corp., Goodyear, Conn.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Schuyler Mfg. Corp., 84. Porete Ave., North Arlington, N. J.
Shielding, Inc., Dept. LB, Riverton, N. J.
Stahlin Brothers, Inc., 103 Maple St., Belding, Mich.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Taylor Fibre Co., Norristown, Pa.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
U. S. Stoneware Co., The, Akron 9, Ohio.
Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.

Western Felt Works, 4029 Ogden Ave., Chicago, Ill.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.
Wilmington Fibre Specialty Co., New Castle, Del.

GAUDEMETERS—Rotating Coil
See FLUXMETERS

GEARS—Precision
American Laubscher Corp., 250 W. 57th St., Flisk Bldg., New York 19, N. Y.
Arch Gear Works, Inc., 97 Holmes St., North Quincy (71), Mass.
Atlas Precision Products Co., 3802 Castor Ave., Philadelphia 24, Pa.
Beaver Gear Works, Inc., 1034 Parmelee St., Rockford, Ill.
Belock Instrument Corp., 111-01 14th Ave., College Point, N. Y.
BOEHME, INC., H. O., 915 Broadway, New York 10, N. Y. ADV. PG. 556.
BOWMAR INSTRUMENT CORP., 2415 Pennsylvania St., Fort Wayne, Ind. ADV. PG. 538, 539.
CUNNINGHAM INDUSTRIES, INC., 56 Hubbard Ave., Stamford, Conn. ADV. PG. 538.
Custom Gear Co., 648 College St., South Bend 28, Ind.
Daco Instrument Co., Tilary & Prince Sts., Brooklyn 1, N. Y.
Dynamic Gear Co., Inc., 20 Merrick Rd., Amityville, N. Y.
Fairchild Camera & Instrument Corp., Reconnaissance Systems Div., Robbins Lane, Syosset, N. Y.
Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
Feedback Controls, Inc., 899 Main St., Waltham 54, Mass.
Franken Gear Works, Inc., 1932 W. Columbia Ave., Chicago 26, Ill.
Gear Specialties, Inc., 2635 W. Medill Ave., Chicago 47, Ill.
Gear Supply Co., 880 El Camino Real, Belmont, Calif.
Gear Systems Inc., Div. of Geartronics Corp., Main St., West Concord, Mass.
General Mills, Inc., Mechanical Div., 1620 Central Ave., Minneapolis 13, Minn.
Grant Gear Works, Inc., 154 W. Second St., South Boston, Mass.
GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
Helipont Corp., Newport Beach, Calif.
Instru-Loc Corp., 520 Hemstead Ave., Mt. Vernon, N. Y.
Link Aviation, Inc., Binghamton, N. Y.
Liton Industries of Maryland, Inc., 4910 Calvert Rd., Cottage Park, Md.
Massachusetts Gear & Tool Div. of Geartronics Corp., 30 Nashua St., Woburn, Mass.
Mica Insulator Co., Schenectady 1, N. Y.
Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo.
National Vulcanized Fibre Co., Wilmington, Del.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
P I C Design Corp., 477 Atlantic Ave., East Rockaway, N. Y.
Perkin Machine & Gear Co., Specialty Machinery Div., West Springfield, Mass.
Quaker City Gear Works, Red Lion & Philmont Rd., Bethayres, Pa.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
Research Development Manufacture, Inc., 429 E. Collom St., Philadelphia 44, Pa.
Sterling Precision Corp., Instrument Div., 34-17 Lawrence St., Flushing 54, N. Y.
Telex, Inc., Telex Park, St. Paul 1, Minn.
U. S. GEAR CORP., 71 Broadway, Wakefield, Mass. ADV. PG. 622.
Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.
Washington Machine & Tool Works, 1001 Washington Ave., S., Minneapolis 15, Minn.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
Winzler Mfg. & Tool Co., 1716 W. Arcade Place, Chicago 12, Ill.
Zagora Gears, Inc., 1327 S. Mint St., Charlotte 3, N. C.

GENERATORS, ELECTRONIC

- 1. AM-FM
 - 2. Harmonic Frequency
 - 3. Microwave
 - 4. Pulse
 - 5. Noise
 - 6. Variable Frequency
 - 7. Ultrasonic
 - 8. Waveform
 - 9. Picture Signal
 - 10. Square Wave
 - 11. Signal, a-f
 - 12. Signal, f-m
 - 13. Signal, r-f
 - 14. Signal, shf
 - 14a. Signal, Single Sideband
 - 15. Signal, Sweeping
 - 16. Signal, Television Synchronizing
 - 17. Signal, uhf or vhf
- A. R. F. Products, Inc., 7627 Lake St., River Forest, Ill. 4-10-12.
Acme Electronics Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio. 9.

Acoustica Associates, Inc., Shore Rd., Glenwood Land-ing 2, N. Y. 7.
Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y. 13-17.
Aeroprojects Incorporated, 310 E. Rosedale Ave., West Chester, Pa. 7.
AIRBORNE INSTRUMENTS LAB., INC. 160 Old Coun-try Rd., Mineola, N. Y. 3-5-6-13. ADV. PG. 253.
AIRCROM INC., 354 Main St., Winthrop 52, Mass. 3. ADV. PG. 652.
AIRCRAFT RADIO CORP., Boonton, N. J. 3-13-17. ADV. PG. 495.
Airmec Ltd., High Wycombe, Buckinghamshire, England. 11-12-13.
Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J. 7.
Alpha Instrument Co., 43 Hempstead St., New London, Conn. 11-12-13.
Alto Scientific Co., 855 Commercial St., Palo Alto, Calif. 4.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. 3. ADV. PG. 412.
American Diathermy Products, Inc., 11858 Mississipp Ave., Los Angeles 25, Calif. 7.
American Electronic Labs., Inc., 121 N. 7th St., Phila-delphia 6, Pa. 4.
American Scientific Development Co., 334 S. Main St., Atkinson, Wis. 9.
Antlab, 4950 N. High St., Columbus 14, Ohio. 10.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. 15. ADV. PG. 672.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 New-port Blvd., Santa Ana, Calif. 1-4-13-15-17. ADV. PG. 541.
B & K Mfg. Co., 3726 N. Southport Ave., Chicago 13, Ill. 8-9-16.
Babcock Radio Engineering Co., P. O. Box 3097, Van Nuys, Calif. 12-17.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. 6-7-10-11-14a.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. 6-13, 2200 Wright Ave., Richmond 3, Calif. 4. ADV. PG. 73-80.
Berkshire Laboratories, 580 Bank Village, Greenville, N. H. 4-8.
Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J. 2-6.
BOONTON RADIO CORP., Boonton, N. J. 1-15. ADV. PG. 427.
BRANSON ULTRASONIC CO., 1 Brown House Rd., Stam-ford, Conn. 7. ADV. PG. 605.
Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif. 4.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. 13-17. ADV. PG. 236.
Bruehl & Kjaer, Naerum, Denmark. 6-11-15.
Burr-Brown Research Corp., Route 4, Box 139, Tucson, Ariz. 4-8-10.
Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia, Pa. 4.
California Technical Industries, 1421 Old County Rd., Belmont, Calif. 3.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif. 15.
Carlson & Nicholson, Inc., 497 Maynard Drive, Buffalo 21, N. Y. 4.
Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 335 N. Newport Blvd., Newport Beach, Calif. 7.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England. 4-6-8-10-11.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. 4-8-14a. ADV. PG. 632.
Clough-Brengle Co., 6014 N. Broadway, Chicago, Ill. 11-13-15-17.
Collins Radio Co., Cedar Rapids, Iowa. 6.
COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicks-ville, N. Y. 2-6. ADV. PG. 532.
COMMUNICATION MEASUREMENTS LAB., INC., 350 Leland Ave., Plainfield, N. J. 6-7. ADV. PG. 547.
Community Engineering Corp., Box 824, State College, Pa. 15-17.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn. 17.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y. 4-10.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. 2-4. ADV. PG. 680.
Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y. 14a.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. 4-8-10. ADV. PG. 380, 381.
Decade Instrument Co., Box 153, Caldwell, N. J. 6-12-15.
Donner Scientific Co., 888 Galindo St., Concord, Calif. 6-11.
Dubrow Development Co., 235B Penn St., Burlington, N. J. 10-12.
Dukane Corp., St. Charles, Ill. 6.
DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J. 4-6-7-10-11.
Dunlap Electronics, 764 Ninth St., Des Moines, Iowa. 4-10.
Electric Indicator Co., Inc., Camp Ave., Springdale, Conn. 6.
Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y. 4.
ELECTRO-PULSE, INC., 11861 Teale St., Culver City, Calif. 4. ADV. PG. 651.
ELECTROMATION CO., 1646 Eighteenth St., Santa Monica, Calif. 4. ADV. PG. 692.

ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
Electronic Measurements Corp., 280 Lafayette St., New York 12, N. Y. 1-10-13-17.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. 11-12-13-15. ADV. PG. 286.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. 3-4. ADV. PG. 388.
Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah. 4-10.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. 2-3. ADV. PG. 195-198.
FEDERAL MFG. ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. 1-2-3-4-6-10-11-12-13-14-17. ADV. PG. 594.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J. 16.
Ferris Instrument Co., 110 Cornellia St., Boonton, N. J. 12-13.
Fischer & Co., R. A., 517 Commercial St., Glendale 3, Calif. 7.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J. 4-6-8-9-10-15-16.
Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa. 4.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GPS Instrument Co., Inc., 811 Boylston St., Boston 16, Mass. 5.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. 3-4. ADV. PG. 563.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 7. ADV. PG. 1-12.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y. 16-17.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. 3-4-5-6-7-10-11-13-17. ADV. PG. 316, 317.
Haller, Raymond & Brown, Inc., State College, Pa. 4.
HAMMER ELECTRONICS CO., INC., Box 531, Princeton, N. J. 4-8. ADV. PG. 671.
Harris Transducer Corp., Woodbury, Conn. 7.
Harvey-Wells Electronics, Inc., North St., Southbridge, Mass. 4-13.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. 6-10-11-12-13-15. ADV. PG. 575.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. 1-3-4-6-7-8-10-11-13-14-17. ADV. PG. 29-40.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. 1-8-9-10-11-12-13-15-17-18. ADV. PG. 66.
Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Armory St., Boston 19, Mass. 2.
Hunter-Bristol Corp., Bristol, Pa. 4.
HYCON EASTERN, INC., Dept. EBG, 75 Cambridge Parkway, Cambridge, Mass. 3. ADV. PG. 400, 401.
Hyon Electronics, Inc., P.O. Bin D, Pasadena, Calif. 9-16.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. 8-11. ADV. PG. 676.
Intercontinental Dynamics Corp., 170 Coolidge Ave., Englewood, N. J. 5.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y. 8-16.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. 1-2-7-11. ADV. PG. 613.
International Electronics Corp., (Mullard Equipment) 81 Spring St., New York 12, N. Y. 7.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. 1-3-5-6-11-12-13-14-15-17. ADV. PG. 355-357.
Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio. 11-13-15-16.
Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md. 4.
JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. 15. ADV. PG. 574.
Kato Engineering Co., 1415 First Ave., Mankato, Minn. 6.
Katolight Corp., First Ave. at Chestnut, Mankato, Minn. 6.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. 1-3-4-5-6-7-9-12-13-14-15-17. ADV. PG. 482, 483.
KIN TEL (KAY LAB), P.O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. 4-16. ADV. PG. 121-123.
Kowli Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa. 3-11-12.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. 3. ADV. PG. 358.
LAVOIE LABORATORIES, INC., Morganville, N. J. 2-4-17. ADV. PG. 485.
Leach Corp., Inet-Palmer Div., 4441-43 S. Santa Fe Ave., Los Angeles 58, Calif. 6.
ING ELECTRONICS, INC., 5170 W. Jefferson Blvd., Los Angeles 16, Calif. 6. ADV. PG. 526.
McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J. 7.
McKenna Laboratories, Santa Monica 6, Calif. 7.
EL F ELECTRONICS, 122 E. 25th St., New York 10, N. Y. 10. ADV. PG. 512.
Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J. 7.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. 2-4-6-13-14-17. ADV. PG. 513.
Manufacturers Engineering & Equipment Corp., York & Sunset Lane, Hatboro, Pa. 15.
ARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. 1-3-5-6-12-13-14-17-18. ADV. PG. 550.

Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass. 7.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y. 3-17.
Measurement Engineering, Ltd., Arnprior Ontario, Canada. 10-11.
MEASUREMENTS CORP., Boonton, N. J. 1-4-10-11-12-17. ADV. PG. 94.
Meridian, Inc., 880 Main St., Stamford, Conn. 3-11-12-13-14-14a-15-16.
Metronix, Inc., Mill Lane, Waterford, Conn. 11.
MICROLAB, 71 Okner Parkway, Livingston, N. J. 2. ADV. PG. 284.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. 3. ADV. PG. 225-228.
Microwave Development Labs., Inc., 92 Broad St., Babson Park 57, Mass. 3.
Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N. Hopkins, Minn. 7.
MOLONEY ELECTRIC CO., 5590 Birchler Blvd., St. Louis 20, Mo. 4. ADV. PG. 527.
Muirhead & Co., Ltd., Beckenham, Kent, England. 6.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W.C. 2, England. 4-7. ADV. PG. 560.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. 4-6. ADV. PG. 369, 370.
NAVIGATION COMPUTER CORP., 1621 Snyder Ave., Philadelphia 45, Pa. 4. ADV. PG. 585.
Northeast Electronics Corp., P. O. Box 425, Municipal Airport, Concord, N. H. 11.
New London Instrument Co., P. O. Box 189, New London, Conn. 10-11-12-17.
NORTHEAST SCIENTIFIC CORP., 617 Concord Ave., Cambridge 38, Mass. 3. ADV. PG. 641.
Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa. 4-6-10-17.
Optron Corp., 3526 State St., Santa Barbara, Calif. 8.
Orbitron Co., Lakeside, Calif. 4.
Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 34, Calif. 15.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. 4. ADV. PG. 268.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second St., Mt. Vernon, N. Y. 15. ADV. PG. 360.
Pennsylvania Testing Lab., Inc., Doylestown, Pa. 3.
PERKIN ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. 4. ADV. PG. 67.
Piezo Products Co., Whitney St., Sherborn, Mass. 7.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. 3-4-8-9-15-16. ADV. PG. 403, 404.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. 2-3-5-6. ADV. PG. 164, 165.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y. 13.
Power Supplies, Inc., 1007 Olive St., Highland, Ill. 6-7.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y. 1-10-11-12-13-15-18.
Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y. 10-11-12-13-15.
Production Research Corp., Thornwood, N. Y. 7.
Pulse Techniques Inc., 1411 Palisade Ave., West Englewood, N. J. 6-11.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England. 4.
RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif. 3a-5.
RADAR ENGINEERS, 403 E. 45th St., Seattle 5, Wash. 10. ADV. PG. 462.
Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill. 4.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa. 1-10-11-12-13-15-16.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. 3-6-8-13-15-16. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. 11-13-15. ADV. PG. 453, Third & Fourth Covers.
Rutherford Electronics Co., 8944 Lindblade St., Culver City, Calif. 4-8.
Scientific Electric Corp., 105-119 Monroe St., Garfield, N. J. 7.
Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass. 5.
Service Instruments Co., 171 Official Rd., Addison, Ill. 13.
Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y. 10.
Servomex Controls Ltd., 80 Shore Rd., Port Washington, N. Y. 4-8-10-15.
Shasta Div. of Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif. 6-7.
Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash. 15.
Solartron, Inc., Western Div., 10761 Burbank Blvd., North Hollywood, Calif. 6-10.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. 11. ADV. PG. 294, 295.
Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clinton Place, Brooklyn 38, N. Y. 4-13.
SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. 4. ADV. PG. 304.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill. 13-14-15.

Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London W.C. 2, England. 2-3-6.
STODDART AIRCRAFT RADIO CO., 6644 Santa Monica Blvd., Hollywood 38, Calif. 4. ADV. PG. 498, 499.
Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y. 11.
Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa. 7.
Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y. 11-12-13.
Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y. 1-6-11-12-13.
Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y. 9-16.
Technical Materiel Corp., P. O. Box 142, Maramoneck, N. Y. 6.
Technical Measurement Corp., 140-142 State St., New Haven 11, Conn. 4.
TECHNITROL ENGINEERING CORP., 1952 E. Allegheny Ave., Philadelphia 34, Pa. 4. ADV. PG. 542.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. 5-8-9-10-12-13-14-14a-15-17. ADV. PG. 417.
Tektronix, Inc., P. O. Box 831, Portland 7, Ore. 4-8-10.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y. 6-12.
Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y. 4.
Television Utilities Corp., 112-23 Colonial Ave., Corona, N. Y. 16.
Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J. 9-12-15-16-17.
TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. 1-2-3-4-6-11-12-13-15-17. ADV. PG. 535.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill. 1-5-6-7.
TRAD ELECTRONICS CORP., 1001 First Ave., Asbury Park, N. J. 13-17. ADV. PG. 522.
TRANSITRON, INC., 186 Granite St., Manchester, N. H. 1-2-3-6-12-13-14-15-17. ADV. PG. 326.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 687.
UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRANSISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. 4-5. ADV. PG. 548.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. 3. ADV. PG. 174, 175, 411.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. 3-6. ADV. PG. 394.
Videon Electronic Corp., 902 E. Michigan St., Indianapolis 2, Ind. 6-10.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. 4-8-10. ADV. PG. 470.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. 4-6-8-10-16. ADV. PG. 630.
Waveforms, Inc., 333 Sixth Ave., New York 14, N. Y. 6-7.
Waveline, Inc., Box 470, Caldwell, N. J. 5.
Webster Electric Co., 1900 Clark St., Racine, Wis. 11.
WEINSCHL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. 4-10-11-13. ADV. PG. 42.
White Electron Devices Inc., Roger, Fourth Ave., Haskell, N. J. 3.
Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa. 2.

GENERATORS—Engine Driven

American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif.
Buda Div. Allis-Chalmers Mfg. Co., Milwaukee 1, Wis.
CONTINENTAL ELECTRIC CO., INC., 334 Ferry St., Newark 5, N. J. ADV. PG. 557.
Detroit Diesel Engine Div. of General Motors Corp., 13400 W. Outer Drive, Detroit 28, Mich.
Eicor, Inc., 4235 W. North Ave., Chicago 39, Ill.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Gaston Power Tools, Inc., P. O. Box 312, Harvey, Ill.
Geator Corp., Manassas, Va.
HOMELITE DIV. OF TETRON INC., Port Chester, N. Y. ADV. PG. 645.
Hoover Electric Co., 2100 S. Stoner Ave., Los Angeles 25, Calif.
Howard Industries, Inc., Divisions: Cyclohm Motor Corp.; Electric Motor Corp., Racine, Wis.
I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.
Jack & Heintz, Inc., Cleveland 1, Ohio.
Katolight Corp., First Ave. at Chestnut, Mankato, Minn.
Kelvin & Hughes Ltd., New North Rd., Barking, Essex, England.
Leach Corp., Inet-Palmer Div., 4441-43 S. Santa Fe Ave., Los Angeles 58, Calif.
Leece-Neville Co., 1374 E. 51st St., Cleveland 3, Ohio.
Motors Research Co., 1600 Junction Ave., Racine, Wis.
Onan & Sons Inc., D. W., University Ave., at 25th St., S. E., Minneapolis 14, Minn.
Pioneer Gen-E-Motor Corp., 5841 W. Dickens, Chicago 39, Ill.
Ready Power Co., The Power Plant Div., 11231 Freud Ave., Detroit 14, Mich.
RED BANK DIVISION, BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 332.
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
TKM Electric Corp., 11600 University Ave., Rochester 7, N. Y.
Wincharger Corp., E. 7th & Division Sts., Sioux City, Iowa.

GENERATORS—Function

CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 380, 381.
Diehl Manufacturing Co., Somerville, N. J.
Donner Scientific Co., 888 Gallindo St., Concord, Calif.
Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
GPS Instrument Co., Inc., 811 Boylston St., Boston 16, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HEATH CO. A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
Intercontinental Dynamics Corp., 170 Coolidge Ave., Englewood, N. J.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
Mid-Century Instrumental Corp., 611 Broadway, New York 12, N. Y.
Optron Corp., 3526 State St., Santa Barbara, Calif.
Servomex Controls Ltd., 80 Shore Rd., Port Washington, N. Y.
TKM Electric Corp., 1160 University Ave., Rochester 7, N. Y.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

GENERATORS—Hand Driven

Eicor, Inc., 4235 W. North Ave., Chicago 39, Ill.
Electric Indicator Co., Inc., Camp Ave., Springdale, Conn.
Electro Engineering Products Co., 609 W. Lake St., Chicago, Ill.
Howard Industries, Inc., Divisions: Cyclohm Motor Corp., Electric Motor Corp., Racine, Wis.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.

GENERATORS—Motor

Aerolab Development Co., 330 W. Holly St., Pasadena, Calif.
Allis-Chalmers Mfg. Co., 935 S. 70th St., Milwaukee 1, Wis.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Bogue Electric Mfg. Co., Iowa Ave., Paterson 3, N. J.
Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif.
Century Electric Co., 1806 Pine St., St. Louis 3, Mo.
CHASE ELECTRONICS INC., 82-31 51st Ave., Elmhurst, N. Y. ADV. PG. 601.
CLIFTON PRECISION PRODUCTS CO., INC., Broadway at Marple Ave., Clifton Heights, Pa. ADV. PG. 134, 135.
Columbia Electric Mfg. Co., 4519 Hamilton Ave., N.E., Cleveland 14, Ohio.
CONTINENTAL ELECTRIC CO., INC., 334 Ferry St., Newark 5, N. J. ADV. PG. 557.
D & R LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. ADV. PG. 698.
Dalmotor Co., 1375 Clay St., Santa Clara, Calif.
Diehl Manufacturing Co., Somerville, N. J.
EASTERN AIR DEVICES, INC., 385 Central Ave., Dover, N. H. ADV. PG. 312.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 333-336.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
Eicor, Inc., 4235 W. North Ave., Chicago 39, Ill.
Electric Indicator Co., Inc., Camp Avenue, Springdale, Conn.
ELECTRIC SPECIALTY CO., 300 South St., Stamford, Conn. ADV. PG. 490.
Electro Engineering Products Co., 609 W. Lake St., Chicago, Ill.
G-M Laboratories, Inc., 4336 N. Knox Ave., Chicago, Ill.
Caston Power Tools, Inc., P. O. Box 312, Harvey, Ill.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Georator Corp., Manassas, Va.
Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
Great Lakes Electric Mfg. Co., 17 S. Desplaines St., Chicago 6, Ill.
Helipot Corp., Newport Beach, Calif.
Hertner Electric Co., 12690 Elmwood Ave., Cleveland 11, Ohio.
Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
HOMELITE DIV. OF TEXTRON INC., Port Chester, N. Y. ADV. PG. 645.
Hoover Electric Co., 2100 S. Stoner Ave., Los Angeles 25, Calif.
Howard Industries, Inc., Divisions: Cyclohm Motor Corp.; Electric Motor Corp., Racine, Wis.
Induction Heating Corp., 181 Wythe Ave., Brooklyn 11, N. Y.
INDUCTION MOTORS CORP., 570 Main St., Westbury, N. Y. ADV. PG. 266.

Jack & Heintz, Inc., Cleveland 1, Ohio.
Katolight Corp., First Ave. at Chestnut, Mankato, Minn.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
Leach Corp., Inet-Palmer Div., 4441-43 S. Santa Fe Ave., Los Angeles 58, Calif.
Leland Electric Co., The, Div. of The American Machine & Foundry Co., 1501 Webster St., Dayton 1, Ohio.
Motorsearch Co., 1600 Junction Ave., Racine, Wis.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
RED BANK DIVISION, BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 332.
Rotating Components, Inc., 269 Green St., Brooklyn 22, N. Y.
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
Servo-Tek Products Co., Inc., 1086 Goffe Rd., Hawthorne, N. J.
Small Motors, Inc., 2076 Elston Ave., Chicago 14, Ill.
Syntorque, Inc., 601 W. 26th St., New York 1, N. Y.
TKM Electric Corp., 1160 University Ave., Rochester 7, N. Y.
WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Wincharger Corp., E. 7th & Division Sts., Sioux City, Iowa.

GENERATORS—Rate See TACHOMETERS

GENERATORS—Winddriven Generating Equipment

Electric Indicator Co., Inc., Camp Ave., Springdale, Conn.
Hoover Electric Co., 2100 S. Stoner Ave., Los Angeles 25, Calif.
TKM Electric Corp., 1160 University Ave., Rochester 7, N. Y.
Wincharger Corp., E. 7th & Division Sts., Sioux City, Iowa.

GEOGRAPHICAL APPARATUS

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
Benson-Lehner Corp., 11930 W. Olympic Blvd., Los Angeles 64, Calif.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., Box 10, Morristown, N. J.
Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah.
Gardiner Electronics, 2545 E. Indian School Rd., Phoenix, Ariz.
Georator Corp., Manassas, Va.
Harris Transducer Corp., Woodbury, Conn.
Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.
Telephonics Corp., Park Ave., Huntington, N. Y.
Texas Division, Brush Electronics Co., 3732 Westheimer Rd., Houston 6, Texas.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
United Electrodynamics Div. of United Geophysical Co., Inc., 1200 S. Marengo, Pasadena, Calif.
UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRAN-SISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. ADV. PG. 548.

GERMANIUM CRYSTALS

See CRYSTALS

GERMANIUM DIODES

See DIODES—Germanium

GERMANIUM RECTIFIERS

See RECTIFIERS—Germanium

GETTERS

See TUBE PARTS

GLASS

See INSULATION MATERIALS

GLASS BONDED MICA

See INSULATION MATERIALS

GLASS FIBRE

See INSULATION MATERIALS

GLASS—Metal-to-Glass Seals

See SEALS—Metal-to-Glass

GLASS PARTS—Precision

CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
HAMILTON ELECTRONICS CORP., Box 100, Bath, N. Y. ADV. PG. 507.

GRAPHIC RECORDING INSTRUMENTS

See INSTRUMENTS—Graphic Recording

GRAPHITE—Colloidal

Acheson Colloids Co., 1950 Washington Ave., Port Huron, Mich.
Grafo Colloids Corp., Sharon, Pa.
Superior Graphite Co., 33 S. Clark St., Chicago 3, Ill.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

GRIDS AND GRID SUPPORTS

See TUBE PARTS

GRILLES—Metal

Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Croname, Inc., 1747 Grace St., Chicago 13, Ill.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
Flock Process Co., Inc., 373 Main Ave., Norwalk, Conn.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard Oak Park, Ill. ADV. PG. 588.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave. S., Minneapolis 8, Minn.
Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
Scovill Manufacturing Co., Waterbury 20, Conn.
Titchener & Co., E. H., 67 Clinton St., Binghamton, N. Y.
Walasco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

GRILLES—Molded Plastic

Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 3, Ill.
Molded Fibreglas Co., 4401 Benefit Ave., Ashtabula, Ohio.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
REF Mfg. Corp., Jericho Turnpike, Mineola, N. Y.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 530.
Romar Plastics, Inc., 1309 E. Main St., St. Charles, Mo.
Sierra Electric Corp., 15100 S. Figueroa St., P.O. Box 85, Gardena, Calif.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lehigh Mills, Pa. ADV. PG. 557.

GRILLES—Speaker

American Mica Insulation Co., Manassas, N. J.
Croname, Inc., 1747 Grace St., Chicago 13, Ill.
Eltran Corp., St. Anne, Ill.
Flock Process Co., Inc., 373 Main Ave., Norwalk, Conn.
Titchener & Co., E. H., 67 Clinton St., Binghamton, N. Y.
Walasco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

GROMMETS

Amatom Electronic Hardware Co., 122 Sunset Blvd., Mamaroneck, N. Y.
Atlantic India Rubber Works, Inc., Dept. EL., 571 Polk St., Chicago 7, Ill.
Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
CONTINENTAL-DIAMOND FIBRE CORP., Newark 1, Delaware. ADV. PG. 345-348.
Dzus Fastener Co., Inc., Box 185, Babylon, N. Y.
Emerson Plastics Corp., 1383 Seabury Ave., Bridgeport, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pensauken, Ind.
Fastex Div. of Illinois Tool Works, 195 Algonquin Des Plaines, Ill.
GENERAL FINDINGS & SUPPLY CO., INDUSTRIAL DIV., Attleboro, Mass. ADV. PG. 327.
GRIES REPRODUCER CORP., 151 Beechwood St., Rochelle, N. Y. ADV. PG. 573.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
HEYMAN MFG. CO., Kenilworth 2, N. J. ADV. PG. 1.
Isolanite Mfg. Corp., Stirling, N. J.
Lavelle Rubber Co., 424 N. Wood St., Chicago 22, Ill.
Lord Mfg. Co., 1635 W. 12th St., Erie, Pa.
Mica Insulator Co., Schenectady 1, N. Y.
National Vulcanized Fibre Co., Wilmington, Del.
Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
Ray-O-Vac Co., 212 E. Washington Ave., Madison, Wis.
Rogers Corporation, Goodyear, Conn.
SEAELECTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 484.
Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
Silicone Insulation, Inc., 1385 Seabury Ave., Bronx, N. Y.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brooklyn 5, N. Y.
Taylor Fibre Co., Norristown, Pa.

United Shoe Machinery Corp., 140 Federal St., Boston 7, Mass.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
 Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.

BROMMETS—Fibre

Amatom Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
 Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 34, Pa.
 Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
 Rogers Corporation, Goodyear, Conn.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
 Taylor Fibre Co., Norristown, Pa.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
 Wilmington Fibre Specialty Co., New Castle, Del.

GUN MOUNTS—Television

FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
 Griffiths Electronics, Inc., 155 Summit St., Newark 3, N. J.
MANSOL CERAMICS CO., 140 Little St., Belleville, N. J. ADV. PG. 697.
 National Video Corp., 4300 W. 47th St., Chicago 32, Ill.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
SUPERIOR ELECTRONICS CORP., 208 Piaget Ave., Clifton, N. J. ADV. PG. 604.
 Thomas Electronics Inc., 118 Ninth St., Passaic, N. J.

GUNS—Soldering

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Electric Soldering Iron Co., W. Elm St., Deep River, Conn.
 Hexacon Electric Co., 130 W. Caly Ave., Roselle Park, N. J.
 Vall Mfg. Co., Grove City, Pa.
 Veller Electric Corp., Box 345, Easton, Pa.
 Ven Products, Inc., 5808 Northwest Highway, Chicago 31, Ill.

GYROSCOPES

Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
 Parco Industries, Inc., Gyro Dynamics Div., 2151 E. Rosencrans Ave., El Segundo, Calif.
AYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.
ETROIT CONTROLS CORP., CONTROL ENGINEERING UNIT, 560 Providence Highway, Norwood, Mass. ADV. PG. 515.
CLIPSE PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 333-336.
ANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
 Robe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
GREENLEAF MFG. CO., THE, 7814 Maplewood Industrial Court, St. Louis 17, Mo. ADV. PG. 219.
 Humphrey, Inc., 2805 Canon St., San Diego 6, Calif.
CARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
 Ivlin & Hughes Ltd., New North Rd., Barking, Essex, England.
 Jar, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
MINNEAPOLIS-HONEYWELL, BOSTON DIV., 1400 Soldiers Field Rd., Boston 15, Mass. ADV. PG. 445.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Orden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
 Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.
EVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
WENDERS ASSOCIATES, INC., Nashua, N. H. ADV. PG. 534.
 Wimmers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.
 S. Time Corp., 346 Tejon Place, Palos Verdes Est., Calif.
 Widdor Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
 Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

ND TOOLS

See TOOLS—Hand or Mechanical

HARDWARE—Electronic

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
 Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
 Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
 Amatom Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
 Automatic Processing Corp., 1335 N. Wells St., Chicago 11, Ill.
 Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
CAMLOC FASTENER CORP., 22 Spring Valley Rd., Paramus, N. J. ADV. PG. 241.
CHASSIS-TRAK, INC., 6248 E. Iona Rd., Indianapolis 3, Ind. ADV. PG. 681.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 605.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
 Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TRAXON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
 Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.
 Goe Engineering Co., 219 S. Mednik Ave., Los Angeles 22, Calif.
GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
 Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
 Hopkins Engineering Co., 12900 Foothill Blvd., San Fernando, Calif.
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
 Irwin Products, 6312 N. Artesian Ave., Chicago 45, Ill.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Johnson Co., E. F., Waseca, Minn.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mt. Vernon, N. Y. ADV. PG. 685.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 664.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
 Litton Industries, Beverly Hills, Calif.
 Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif.
MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. ADV. PG. 252.
 Milten Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Modern-Aire Mfg. Corp., 4436 W. Roosevelt Rd., Chicago 24, Ill.
 Nagel-Chase Mfg. Co., 2811 N. Ashland Ave., Chicago 13, Ill.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Newcomb Spring Corp., The, 177 E. Hawthorne Ave., Valley Stream, N. Y.
NIELSEN HARDWARE CORP., 770 Wethersfield Ave., Hartford 14, Conn. ADV. PG. 539.
 Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
 Pfeiffer Products, 3901 W. 54th St., Los Angeles 43, Calif.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 670.
 Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
 Richards Electrocraft, Inc., 3743 N. Kedzie Ave., Chicago 18, Ill.
ROGAN BROS., 8031 N. Monticell Ave., Skokie, Ill. ADV. PG. 222.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 Sheffco Mfg. Corp., Grand & Ruby Aves., Palisades Park, N. J.
 Sinclair Mfg. Co., Chartley, Mass.
SOUTHC DIVISION, SOUTH CHESTER CORP., 233 Industrial Highway, Lester, Pa. ADV. PG. 254.
 Stanley-Judd Div. of Stanley Works, Wallingford, Conn.
 Stanley Pressed Metal Div. of The Stanley Works, New Britain, Conn.

STAR EXPANSION PRODUCTS CO., INC., 142 Liberty St., New York 6, N. Y. ADV. PG. 588.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.

TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.

United Technical Laboratories, Box 425-V, Morristown, N. J.

U. S. Engineering Co., Div. of Litton Industries, 5873 Rodeo Rd., Los Angeles 18, Calif.

U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.

VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 476.

Vibrex Fastener Corp., Mount Kisco, N. Y.

Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.

Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

ZIERICK MFG. CORP., Beechwood & Rockdale Aves., New Rochelle, N. Y. ADV. PG. 605.

HARNESSES—Wire

See Also CABLE ASSEMBLIES

Aerolite Electronics Corp., 507 26th St., Union City, N. J.

Aeronautical Electronics Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.

Airborne Electronics Co., 6813 Troost Ave., North Hollywood, Calif.

ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 567.

ALLIED ALLEGRI INC., 141 River Rd., Nutley, N. J. ADV. PG. 650.

AMPHENOL ELECTRONICS CORP., 1930 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.

Bernco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.

Bliss Electronic Corp., Box 366, Sussex, N. J.

Buffalo Electronics Corp., 37 Franklin St., Buffalo 2, N. Y.

Cable Specialist of Conn., 474 Prospect Ave., Hartford, Conn.

Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.

COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.

COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.

Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.

ConRay Corp., 29 W. Apple St., Dayton 2, Ohio.

CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 20.

Decatur Electronics Industries Corp., 203 Orinco Drive, Brightwater, N. Y.

Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.

Eastern Specialty Co., Philadelphia 40, Pa.

Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.

Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.

Electronic Products Corp., 322 State St., Santa Barbara, Calif.

ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.

Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.

ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.

First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.

General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.

GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.

GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.

Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.

Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.

HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.

Illumintron Engineering, 680 E. Taylor, Sunnvale, Calif.

Industrial Wiring & Cable Co., 103 Foundry St., Wakefield, Mass.

Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.

Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.

KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mt. Vernon, N. Y. ADV. PG. 685.

KUPFRYAN MFG. CORP., 398 State St., Binghamton, N. Y. ADV. PG. 684.

Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.

LING ELECTRONICS, INC., 5170 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.

MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass.

Manger Electric Co., Miller St., Stamford, Conn.

Microdot, Inc., 220 Pasadena Ave., South Pasadena, Calif.

Modelcraft Products Corp., 1500 Bangs Ave., Asbury Park, N. J.

Miller Electric Co., 120 Main St., Pawtucket, R. I.

Mutron Corp., 125 Perkins Ave., Brockton, Mass.

National Aircraft Corp., 3411 Tulare St., Burbank, Calif.

Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.

North Electric Co., 553 S. Market St., Gallion, Ohio.

Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.
 Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 72.
REVERE CORP. OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
 Rosenau, Harris & Co., Ontario & "Y" Sts., Philadelphia 34, Pa.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
SCINTILLA DIVISION, BENDIX AVIATION CORP., Sidney, N. Y. ADV. PG. 337.
 Sheltered Workshop, 2521 5th St., Santa Monica, Calif.
 Skysweeper Inc., McHenry, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. ADV. PG. 661.
 Tele-matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.
 Texco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
 Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
 Tronic Coil Winding Co., Inc., 58 Wesley St., Waterbury, Conn.
 United Manufacturing & Service Co., 405 S. Sixth St., Milwaukee 4, Wis.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 Wheeler Insulated Wire Co., The, Div. of The Sperry Corp., 180 E. Aurora St., Waterbury 91, Conn.

HEADPHONES & HEADSETS

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
 Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
 British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
 Cannon Co., C. F., Springfield, N. Y.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
 Hal-Hen Co., 36-14 Eleventh St., Long Island City 6, N. Y.
 Helipot Corp., Newport Beach, Calif.
 Lesa, Via Bergamo 21, Milan, Italy.
 Melody Master Mfg. Co., 2842 N. Cicero Ave., Chicago 41, Ill.
 Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
 Rye Sound Corp., 21 Rye Rd., Rye, N. Y.
 Sierra Electric Corp., 15100 S. Figueroa St., P.O. Box 85, Gardena, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.
 Superec Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Telex, Inc., Telex Park, St. Paul 1, Minn.
 Trimm, Inc., 400 W. Lake St., Libertyville, Ill.

HEADS—Magnetic Drum (Memory)

EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
 Electro-Tech Pacific, Santa Barbara Airport, P.O. Box 455, Goleta, Calif.
 General Transistor Western Corp., 6110 Venice Blvd., Los Angeles 34, Calif.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
 Lipps, Inc., Edwin A., 5485 W. Washington Blvd., Los Angeles 16, Calif.
 Litton Industries, Beverly Hills, Calif.
 Magne-Pulse Corp., 247 Crooks Ave., Clifton, N. J.
 Norton Associates, Inc., P.O. Box 96, Garden City, N. Y.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
 Steward Mfg. Co., D.M., 3600 Jerome Ave., Chattanooga 1, Tenn.
 Texas Division, Brush Electronics Co., 3732 Westheimer Rd., Houston 6, Texas.

HEADS—Magnetic Film

Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
 Electro-Tech Pacific, Santa Barbara Airport, P.O. Box 455, Goleta, Calif.
 General Transistor Western Corp., 6110 Venice Blvd., Los Angeles 34, Calif.
 Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
 Lipps, Inc., Edwin A., 5485 W. Washington Blvd., Los Angeles 16, Calif.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Norton Associates, Inc., P.O. Box 96, Garden City, N. Y.
 Nortronics Co., Inc., 1015 S. Sixth St., Minneapolis 4, Minn.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.

HEADS—Recording

A. P. W. Co., 72 W. Main St., Rockaway, N. J.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
 Audak Co., 500 Fifth Ave., New York, N. Y.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
 Electro-Tech Pacific Santa Barbara Airport P.O. Box 455, Goleta, Calif.
 General Transistor Western Corp., 6110 Venice Blvd., Los Angeles 34, Calif.
 Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
 Lipps, Inc., Edwin A., 5485 W. Washington Blvd., Los Angeles 16, Calif.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Norton Associates, Inc., P. O. Box 96, Garden City, N. Y.
 Nortronics Co., Inc., 1015 S. Sixth St., Minneapolis 4, Minn.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Presto Recording Corp., P. O. Box 500, Paramus, N. J.
 Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif.
 Shure Brothers, Inc., 246 Hartrey Ave., Evanston, Ill.
SONOTONE CORP., Saw Mill River Rd., P.O. Box 200, Elmsford, N. Y. ADV. PG. 674.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P.O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
 Telecomputing Div. of Telecomputing Corp., 12838 Satcoy St., North Hollywood, Calif.
 Teletronic Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

HEADS—Tape Recording

British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
DAVIES LABORATORIES DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 10721 Hanna St., Beltsville, Md. ADV. PG. 446.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
 Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.
 Electro-Tech Pacific, Santa Barbara Airport, P. O. Box 455, Goleta, Calif.
 General Transistor Western Corp., 6110 Venice Blvd., Los Angeles 34, Calif.
INTERSEARCH, INC., 7 Arcadia Place, Cincinnati 8, Ohio. ADV. PG. 480.
 Lipps, Inc., Edwin A., 5485 W. Washington Blvd., Los Angeles 16, Calif.
 Magnecord, Inc., 1101 S. Kilbourn Ave., Chicago 24, Ill.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Norton Associates, Inc., P. O. Box 96, Garden City, N. Y.
 Nortronics Co., Inc., 1015 S. Sixth St., Minneapolis 4, Minn.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Presto Recording Corp., P. O. Box 500, Paramus, N. J.
 Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif.
 Shure Brothers, Inc., 246 Hartrey Ave., Evanston, Ill.
 Teletronic Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Texas Division, Brush Electronics Co., 3732 Westheimer Rd., Houston 6, Texas.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

HEARING AID TUBES

See TUBES—Hearing Aid

HEARING AIDS

Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
 Audiovox, Inc., 123 Worcester St., Boston 18, Mass.
 Aurex Corp., 1117 N. Franklin St., Chicago 10, Ill.
 Beltone Hearing Aid Co., 2900 W. 36th St., Chicago 32, Ill.
 Gem Ear Phone Co., Inc., 50 W. 29th St., New York 1, N. Y.
 Laurehk Radio Mfg. Co., 3931 S. Wayne Rd., Wayne, Mich.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Microtone Corp., The, 758 Mississippi River Blvd., St. Paul 1, Minn.
 Myers & Sons, Inc., E. A., P. O. Box 8032, Radnor Building, Pittsburgh 16, Pa.
 Nichols & Clark, Inc., P. O. (321 Newburyport Turnpike, Danvers), Hathorne, Mass.
 Paravox Inc., 2056 E. Fourth St., Cleveland 15, Ohio.
 Rye Sound Corp., 21 Rye Rd., Rye, N. Y.
SONOTONE CORP., Saw Mill River Road, P.O. Box 200, Elmsford, N. Y. ADV. PG. 674.
 Televox Mfg. Co., 1307 Sansom St., Philadelphia 1, Pa.
 Telex, Inc., Telex Park, St. Paul 1, Minn.

HEAT TREATING SERVICE

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Hayes Inc., C. I., 800 Wellington Ave., Cranston, R. I.
 Jan Hardware Mfg. Co., 75 N. 11th St., Brooklyn 11, N. Y.
 Sargeant & Wilbur Heat Treating Corp., 170 York Ave., Pawtucket, R. I.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 8, Pittsburgh 30, Pa. ADV. PG. 205-216.

HEATING, ELECTRONIC—Accessories and Associated Equipment

Capps & Co., Inc., 20 Addison Place, Valley Stream, N. Y.
 Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 355 N. Newport Blvd., Newport Beach, Calif.
CONNECTICUT HARD RUBBER CO., 407 East St., Haven 9, Conn. ADV. PG. 646.
D & R LTD., 402 E. Gutierrez St., P. O. Box 15, Santa Barbara, Calif. ADV. PG. 698.
 Electronic Processes Corp., 2190 Folsom St., San Francisco 10, Calif.
 Electron-Radar Products, P. O. Box 50, Route #1, North Aurora, Ill.
 Erdco Engineering Corp., Addison, Ill.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Induction Heating Corp., 181 Wythe Ave., Brooklyn 1, N. Y.
 Johnson Co., E. F., Waseca, Minn.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lomb Oak Park, Ill. ADV. PG. 588.
 Lepel High Frequency Labs., Inc., 55th St. & 7th Ave., Woodside 77, N. Y.
 McDowell Electronics, Inc., P. O. Box 342, Metairie, N. J.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 4, Calif.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth St., Minneapolis 8, Minn.
 Mytron Mfg. Co., 4528 Brazil St., Los Angeles 16, Calif.
 New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Radio Frequency Co., Inc., 44 Park St., Medford, Mass.
 Reeve Electronics, Inc., 609 W. Lake St., Chicago 6, Ill.
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 Scientific Electric Corp., 105-119 Monroe St., Garden City, N. J.
 Sherman Industrial Electronics Co., Inc., 505 Washington Ave., Belleville 9, N. J.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London W. C. 2, England.
UNITED AIRCRAFT PRODUCTS, INC., 1116 Bolivar Ave., Dayton 1, Ohio. ADV. PG. 148.
U. S. RUBBER CO., 1230 Avenue of the Americas, New York 20, N. Y. ADV. PG. 119.
 Vulcan Electric Co., Danvers, Mass.
 Watlow Electric Mfg. Co., 1376 Ferguson Ave., St. Louis 14, Mo.
 Wiegand Co., Edwin L., 7606 Thomas Blvd., Pittsburgh 8, Pa.
 Woodwelding, Inc., 3000 W. Olive, Burbank, Calif.

HEATING, ELECTRONIC—Dielectric

Allis-Chalmers Mfg. Co., 935 S. 70th St., Milwaukee 1, Wis.
 Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 355 N. Newport Blvd., Newport Beach, Calif.
 Cox & Co., Inc., 115 E. 23rd St., New York 10, N. Y.
 Electronic Processes Corp., 2190 Folsom St., San Francisco 10, Calif.

General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Girdler Company, The, Thermex Div., 224 E. Broadway, Louisville 1, Ky.
 Induction Heating Corp., 181 Wythe Ave., Brooklyn 11, N. Y.
 Induston Corp., 55 Needham St., Newton Highlands, Mass.
 Mytron Mfg. Co., 4528 Brazil St., Los Angeles 39, Calif.
 New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.
 Peeco Corp., 2760 Whittier Blvd., Los Angeles 23, Calif.
 Radio Frequency Co., Inc., 44 Park St., Medfield, Mass.
RADIO RECEPTOR CO., 240 Wythe Ave., Brooklyn 11, N. Y. ADV. PG. 68, 69.
 Reeve Electronics, Inc., 609 W. Lake St., Chicago 6, Ill.
 Resdel Engineering Corp., 330 S. Fair Oaks Ave., Pasadena, Calif.
 Scientific Electric Corp., 105-119 Monroe St., Garfield, N. J.
 Sherman Industrial Electronics Co., Inc., 505 Washington Ave., Belleville 9, N. J.
 Standard Telephones & Cables, Ltd., Gonnaght House, 63 Aldwych, London, W.C. 2, England.
 Wells Co., Gary, 361 Rockaway Ave., Valley Stream, N. Y.
 Woodwelding, Inc., 3000 W. Olive, Burbank, Calif.
 Young Brothers Co., 1829 Columbus Rd., Cleveland, Ohio.

HEATING, ELECTRONIC—Induction

Allis-Chalmers Mfg. Co., 935 S. 70th St., Milwaukee 1, Wis.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 355 N. Newport Blvd., Newport Beach, Calif.
D & R, LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. ADV. PG. 698.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Induction Heating Corp., 181 Wythe Ave., Brooklyn 11, N. Y.
 Induston Corp., 55 Needham St., Newton Highlands, Mass.
 Lepel High Frequency Labs., Inc., 55th St. & 7th Ave., Woodside 77, N. Y.
 McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.
 Marican Electrical Instrument Co., 402 Canal St., Manchester, N. H.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 8, Calif.
 Mytron Mfg. Co., 4528 Brazil St., Los Angeles 39, Calif.
 New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.
 Ohio Crankshaft Co., Tocco Div., 3800 Harvard Ave., Cleveland 5, Ohio.
 Radio Frequency Co., Inc., 44 Park St., Medfield, Mass.
 Reeve Electronics, Inc., 609 W. Lake St., Chicago 6, Ill.
 Scientific Electric Corp., 105-119 Monroe St., Garfield, N. J.
 Sherman Industrial Electronics Co., Inc., 505 Washington Ave., Belleville 9, N. J.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London W.C. 2, England.
STEWART ENGINEERING CO., Box 277, Soquel, Calif. ADV. PG. 668, 669.

HEATING ELEMENTS

See ELEMENTS—Heating

HOLDERS—Crystal

Admittance-Namco Corp., Farmingdale, N. Y.
 Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
 Allied Industries, Inc., 25th & Woodland Ave., Louisville 10, Ky.
 American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
 Im Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Info Corp., Route 38 at Airport Circle, Pensauken, N. J.
R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
REQUENCY STANDARDS INC., P. O. Box 504, Asbury Park, N. J. ADV. PG. 578.
 ermetite Corp., 702 Beacon St., Boston 15, Mass.
 upp Electronics Co., A Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.
V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
 Johnson Co., E. F., Waseca, Minn.
 olantite Mfg. Corp., Stirling, N. J.
ERIDAN METALCRAFT, INC., 8739 S. Millergrrove Drive, Whittier, Calif. ADV. PG. 540.
 ational Co., Inc., 61 Sherman St., Malden 48, Mass.
 bel Laboratory, R. E., 1624 E. 12th St., Brooklyn 29, N. Y.
 rmonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
 emier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.

SCIENTIFIC ELECTRONIC LABS, INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 670.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Warren Plastics Corp., Warren, Pa.
 Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.

HOLDERS—Fuse

See BLOCKS, FUSE BLOCKS & HOLDERS

HORNS—Microwave

See MICROWAVE ACCESSORIES

HORNS—Speaker Projector

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
 Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
 Jensen Mfg. Co., 6601 S. Laramie Ave., Chicago 38, Ill.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 Molded Fibreglass Co., 4401 Benefit Ave., Ashtabula, Ohio.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Sieler Design Products, 10460 San Pablo Ave., El Cerrito, Calif.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

HOUSINGS—Antenna

AINSLIE CORP., 312 Quincy Ave., Quincy, Mass. ADV. PG. 589.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
 Keller Products Inc., 41 Union St., Manchester, N. H.
 Peterson & Neville, Inc., 365 Dorchester Ave., Boston, Mass.
 Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.
 Silicone Insulation, Inc., 1385 Seabury Ave., Bronx 61, N. Y.

HOUSINGS—Automobile Radio

Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
 Ellis & Sons Inc., George D., 4002 N. American St., Philadelphia 40, Pa.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.

HOUSINGS—Instrument

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 644.
ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 554.
 Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
AMERICAN ALUMINUM CO., Sheffield St., C, Mountain-side, N. J. ADV. PG. 604.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
 Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
BALTIMETAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 501.
 Bennett Mfg. Co., Alden, N. Y.
 Bristol Co., The, P.O. Box 1790 EBG, Waterbury 20, Conn.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 605.
 Columbia Metal Box Co., 260 E. 143rd St., New York, N. Y.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Devco Engineering Inc., P.O. Box 387, Caldwell, N. J.

Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
 Ellis & Sons Inc., George D., 4002 N. American St., Philadelphia 40, Pa.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 538.
 Helder Mfg. Corp., 238 Lewis St., Paterson, N. J.
 Henry and Miller Industries Inc., 675 Garfield Ave., Jersey City 5, N. J.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
 Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Keller Products Inc., 41 Union St., Manchester, Conn.
 Koch & Sons, H., Corte Madera, Calif.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Mobil Electronics Mfg. Co., 1111 State Rd., 67 E., Anderson, Ind.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Molding Corp. of America, 40 Church St., Pawtucket, R. I.
 Olympic Metal Products Co., Inc., Third Ave., Alpha, N. J.
 Peterson & Neville, Inc., 365 Dorchester Ave., Boston, Mass.
PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx 59, N. Y. ADV. PG. 646.
 Sierra Electric Corp., 15100 S. Figueroa St., P.O. Box 85, Gardena, Calif.
 Silicone Insulation, Inc., 1385 Seabury Ave., Bronx 61, N. Y.
 Sun Tube Corp., Washington, N. J.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
 White Aircraft Corp., Palmer, Mass.

HOUSINGS—Plug-In

ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
AMERICAN ALUMINUM CO., Sheffield St., C, Mountain-side, N. J. ADV. PG. 604.
 Berkshire Laboratories, 580 Bank Village, Greenville, N. H.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
 Electronic Service Corp., 2906 Birch St., Franklin Park, Ill.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Molded Fibreglass Co., 4401 Benefit Ave., Ashtabula, Ohio.
 Technical Electronics Corp., 4060 Ince Blvd., Culver City, Calif.

HOUSINGS—Public Address System

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
 Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
 Bogen Co., Inc., David, P.O. Box 500, Paramus, N. J.
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
 Dukane Corp., St. Charles, Ill.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 538.
 I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Molded Fibreglass Co., 4401 Benefit Ave., Ashtabula, Ohio.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
 O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.

HOUSINGS—Speaker

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
 Argos Products Co., 310 Main St., Genoa, Ill.
 Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
 Bogen Co., Inc., David, P.O. Box 500, Paramus, N. J.
 Bud Radio Inc., 2118 E. 55th St., Cleveland 3, Ohio.
 Dukane Corp., St. Charles, Ill.

Electro Voice Mfg. Co., Inc., Buchanan, Mich.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
 Lansing Sound, Inc., James B., 2439 Fletcher Drive, Los Angeles 26, Calif.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
 Mobil Electronics Mfg. Co., 1111 State Rd., 67 E. Anderson, Ind.
 Molded Fibreglas Co., 4401 Benefit Ave., Ashtabula, Ohio.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.

HUMIDITY

See **INDICATORS**

HYBRID JUNCTIONS—Microwave

See **MICROWAVE ACCESSORIES**

IGNITION SYSTEMS—Electronic

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
 Breeze Corps., Inc., 700 Liberty Ave., Union, N. J.
ELECTROMATION CO., 1646 Eighteenth St., Santa Monica, Calif. ADV. PG. 692.
 Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
SCINTILLA DIVISION, BENDIX AVIATION CORP., Sidney, N. Y. ADV. PG. 337.

IGNITRON

See **TUBES**

ILLUMINATION CONTROLS

See **CONTROLS—Illumination**

IMPEDANCE

See **DETECTORS**

IMPREGNATING COMPOUNDS

See **INSULATING COMPOUNDS**

IMPREGNATING MACHINES

See **MACHINES**

INDICATORS—Antenna Position

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 Antlab, 4950 N. High St., Columbus 14, Ohio.
 Bendix Aviation Corp., Montrose Div., South Montrose, Pa.
 Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
SHURITE METERS, INC., 35-B Hamilton St., New Haven 8, Conn. ADV. PG. 655.

INDICATORS—Arc Back

Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.

INDICATORS—Broadcast Volume

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

INDICATORS—Capacitor Leakage

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Clough-Bregle Co., 6014 N. Broadway, Chicago, Ill.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.

Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
KEITHLEY INSTRUMENTS, INC., DEPT. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
 Lee Electronic Labs., Inc., 88 Evans St., Watertown, Mass.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

INDICATORS—Density

See **INDICATORS—Specific Gravity**

INDICATORS—Detonation Indicators & Motors

Omega Instrument Co., Box 495M, Pasadena, Calif.
 Roller Smith Corp., 1825 W. Market St., Bethlehem, Pa.

INDICATORS—Dew Point

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
 Bristol Co., The P. O. Box 1790 EBG, Waterbury 20, Conn.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Foxboro Co., The, Foxboro, Mass.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.

INDICATORS—Dielectric Constant

Central Research Laboratories, Inc., Red Wing, Minn.
 Foxboro Co., The, Foxboro, Mass.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.

INDICATORS—Film Thickness

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 427.
 Branson Instruments, Inc., 1 Brown House Rd., Stamford, Conn.
CURTISS-WRIGHT CORP., ELECTRONICS DIV., PLANT #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
 Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Schaeffert Engineering, P. O. Box 505, Camden 1, N. J.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.

INDICATORS—Fluid Conductivity

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London W. C. 2, England. ADV. PG. 560.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.

INDICATORS—Fluid Flow, Electronic

Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.
 Bendix Aviation Corp., Montrose Div., South Montrose, Pa.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
 Dynapar Corp., 5150 Church St., Skokie, Ill.
 Elesta Ltd., Bad Ragaz, Switzerland.
 Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.

Hays Mfg. Co., 818 W. 12th St., Erie, Pa.
 I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Leupold & Stevens Instruments, Inc., P. O. Box 5082, Portland 13, Ore.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
 Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
 Nuclear Research Corp., Southampton, Pa.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
REVERE CORP. OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
 Shand and Jurs Co., Sub. of General Precision Equipment Corp., Carleton & Eighth Sts., Berkeley 10, Calif.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Victory Engineering Corp., 101 Springfield Rd., Union, N. J.
WAUGH ENGINEERING CO., 7842 Burnet Ave., Van Nuys, Calif. ADV. PG. 663.

INDICATORS—Frequency

Acme Teletronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
ACROMAG CO., 22519 Telegraph Rd., Detroit 19, Mich. ADV. PG. 492.
 Aero Instrument Corp., 11423 Vanowen St., North Hollywood, Calif.
AIRPAC PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
 Conn. Ltd., C. G., 1101 E. Beardsley Ave., Elkhart, Ind.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 Dynapar Corp., 5150 Church St., Skokie, Ill.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
 I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.
 International Research & Development Corp., 769 Thomas Lane, P. O. Box 1707, Columbus 16, Ohio.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 503.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 61.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.
 Pantek Co., Box 212, El Segundo, Calif.
 Performance Measurements Co., 15310 W. McNichols Detroit 35, Mich.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Ransom Research, P. O. Box 382, San Pedro, Calif.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Madison St., New Rochelle, N. Y. ADV. PG. 618.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
TELECHROME MFG. CORP., 28 Ranick Drive, Amherst, N. Y. ADV. PG. 417.
 Telex, Inc., Telex Park, St. Paul 1, Minn.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 WaLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. ADV. PG. 630.
WAUGH ENGINEERING CO., 7842 Burnet Ave., Van Nuys, Calif. ADV. PG. 663.

Wells Co., Gary, 361 Rockaway Ave., Valley Stream, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 5, N. J.
WESTRONICS, INC., 3605 McCart St., Fort Worth, Texas. ADV. PG. 554.

INDICATORS—Hardness

Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

INDICATORS—Humidity, Electronic

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
 Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Foxboro Co., The, Foxboro, Mass.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Serdex, Inc., 91 Cambridge St., Boston, Mass.
 Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

INDICATORS—Illumination

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Elesta Ltd., Bad Ragaz, Switzerland.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Specialties, Inc., Skunks Misery Rd., Syosset, N. Y.

INDICATORS—Liquid Level, Electronic

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
 Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
 Elesta Ltd., Bad Ragaz, Switzerland.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
 Fisher Research Lab., Inc., 1961 University Ave., Palo Alto, Calif.
 Foxboro Co., The, Foxboro, Mass.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Haledy Electronics Co., 57 William St., New York 5, N. Y.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Leupold & Stevens Instruments, Inc., P. O. Box 5082, Portland 13, Ore.
 Liquidometer Corp., The, Skillman Ave. at 36th St., Long Island City 1, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Nuclear Research Corp., Southampton, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Radioactive Products, Inc., 2421 Wolcott, Ferndale, Mich.
REVERE CORP. OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
 Shand and Jurs Co., Sub. of General Precision Equipment Corp., Carleton & Eighth Sts., Berkeley 10, Calif.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.

TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Victory Engineering Corp., 101 Springfield Rd., Union, N. J.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.
 Warrick Co., Charles F., 1964 W. Eleven Mile Rd., Berkeley, Mich.
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

INDICATORS—Materials Thickness

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
 Amthor Testing Instrument Co., 45-53 Van Sinderen Ave., Brooklyn 7, N. Y.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
 Branson Instruments, Inc., 1 Brown House Rd., Stamford, Conn.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
CURTIS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
 Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Nuclear Research Corp., Southampton, Pa.
 Optron Corp., 3526 State St., Santa Barbara, Calif.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.

INDICATORS—Moisture, Electronic

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

INDICATORS—Null

BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 159.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
 Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., Box 10, Morristown, N. J.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
 Deltrom, Inc., 2905 N. Leithgow St., Philadelphia 33, Pa.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 503.
KIN TEL (KAY LAB.), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
 Millitest Co., 88 Madison Ave., Hempstead, N. Y.
 Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
MINNEAPOLIS-HONEYWELL BOSTON DIV., 1400 Soldiers Field Rd., Boston 15, Mass. ADV. PG. 445.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 Pennsylvania Testing Lab., Inc., Doylestown, Pa.
 Performance Measurements Co., 15310 W. McNichols, Detroit 15, Mich.
 Phaostrom Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
 Roller Smith Corp., 1825 W. Market St., Bethlehem, Pa.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
 Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
 Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.

INDICATORS—Null-Balance, Potentiometer Type

Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
DETROIT CONTROLS CORP., CONTROL ENGINEERING UNIT, 560 Providence Highway, Norwood, Mass. ADV. PG. 515.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
GRAY INSTRUMENT CO., 200 E. Church Lane, Philadelphia 44, Pa. ADV. PG. 643.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
 Leeds & Northrup, 4970 Stenton Ave., Philadelphia 44, Pa.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
 Performance Measurements Co., 15301 W. McNichols, Detroit 35, Mich.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.
WESTRONICS, INC., 3605 McCart St., Fort Worth, Texas. ADV. PG. 554.

INDICATORS—Ocean Depth

Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
 Kelvin & Hughes Ltd., New North Rd., Barking, Essex, England.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.

INDICATORS—Oxygen

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
 Beckman Inc., Arnold O., 1020 Mission St., South Pasadena, Calif.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Liquidometer Corp., The, Skillman Ave. at 36th St., Long Island City 1, N. Y.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

INDICATORS—pH

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Fielden Instrument Div., of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
 La Motte Chemical Products Co., Chestertown, Md.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Philips Electronics, Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
 Weston Electrical Instrument Corp., a sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

INDICATORS—Photographic Exposure

Acme Electronix Div. of NEA Service, Inc., West Third & Lakeside, Cleveland 13, Ohio.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
 Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
 Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Weston Electrical Instrument Corp., a sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

INDICATORS—Positioning

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
 Allard Instrument Corp., 146 E. Second St., Mineola, N. Y.
 Anatron Div. of Endevco Corp., 165 E. California St., Pasadena, Calif.
 Antlab, 4950 N. High St., Columbus 14, Ohio.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bendix Aviation Corp., Montrose Div., South Montrose, Pa.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
 Ford Instrument Co., Div. of Sperry Rand Corp., 31-10 Thomson Ave., Long Island City 1, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Liquidometer Corp., The, Skillman Ave. at 36th St., Long Island City 1, N. Y.
 Millitest Co., 88 Madison Ave., Hemet, N. Y.
MINNEAPOLIS-HONEYWELL, BOSTON DIV., 1400 Soldiers Field Rd., Boston 15, Mass. ADV. PG. 445.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
 Omega Instrument Co., Box 495M, Pasadena, Calif.
PSP ENGINEERING CO., 8608 Otis St., South Gate, Calif. ADV. PG. 621.
 Penn Keystone Corp., 18 Elizabeth St., West Conshohocken, Pa.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
 Schaeffert Engineering, P. O. Box 505, Camden 1, N. J.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
WALLSON ASSOCIATES, Ltd., 963 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 691.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. ADV. PG. 630.

INDICATORS—Power, Level, Electronic

Admittance-Namco Corp., Farmingdale, N. Y.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Brunswick Instruments, P. O. Box 813, New Brunswick, N. J.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Ram Meter, Inc., 1100 Hilton Rd., Ferndale, Detroit 20, Mich.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Wacline, Inc., 35 S. St. Clair St., Dayton 2, Ohio.

INDICATORS—Pressure

Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.

BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bendix Aviation Corp., Montrose Div., South Montrose, Pa.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
 Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
 Chesapeake Instrument Corp., Shadyside, Md.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
 Endevco Corp., 161 E. California St., Pasadena, Calif.
 Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
GREENLEAF MFG. CO., THE, 7814 Maplewood Industrial Court, St. Louis 17, Mo. ADV. PG. 219.
 Hathaway Instrument Div., Hamilton Watch Co., 5800 E. Jewell Ave., Denver 22, Colo.
 Hastings-Raydist, Inc., Hampton 9, Va.
 Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
 Kelvin & Hughes Ltd., New North Rd., Barking, Essex, England.
 Kistler Instrument Corp., 15 Webster St., North Tonawanda, N. Y.
 Kollsman Instrument Corp., Sub. of Standard Coil Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
 Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 3, Calif.
MINNEAPOLIS-HONEYWELL, BOSTON DIV., 1400 Soldiers Field Rd., Boston 15, Mass. ADV. PG. 445.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Waindrum Aves., Philadelphia 44, Pa. ADV. PG. 447.
 Omega Instrument Co., Box 495M, Pasadena, Calif.
 Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
 Schaeffert Engineering, P. O. Box 505, Camden 1, N. J.
 Shand and Jurs Co., Sub. of General Precision Equipment Corp., Carleton & Eighth Sts., Berkeley 10, Calif.
 U. S. Gauge Div., American Machine & Metals, Inc., Sellersville, Pa.
 Wallace & Tiernan Inc., 25 Main St., Belleville 9, N. J.

INDICATORS—Pulse Time Riser

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
ESC CORP., 534 Bergen Blvd., Pallsades Park, N. J. ADV. PG. 63.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.

INDICATORS—Radiation See COUNTERS—Geiger

INDICATORS—Recording Engine

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.
 Omega Instrument Co., Box 495M, Pasadena, Calif.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.

INDICATORS—rf Probe

Admittance-Namco Corp., Farmingdale, N. Y.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.

FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
 Javex, P. O. Box 646, Redlands, Calif.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
STODDARD AIRCRAFT RADIO CO., 6644 Santa Monica Blvd., Hollywood 38, Calif. ADV. PG. 498, 499.

INDICATORS—Shorted Turn

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
KARTON, INC., Box 472, Huntington Beach, Calif. ADV. PG. 492.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
 Telex, Inc., Telex Park, St. Paul 1, Minn.

INDICATORS—Smoke & Combustion, Electronic

Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Combustion Control Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Electronic Control Corp., 1573 E. Forest St., Detroit 10, Mich.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.
 Kelvin & Hughes Ltd., New North Rd., Barking, Essex, England.
 Lumenite Electric Co., 407 S. Dearborn St., Chicago 11, Ill.
 Marine Electric Co., 600 E. Fourth Ave., Brooklyn 11, N. Y.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.

INDICATORS—Sound Level

Bruehl & Kjaer, Naerum, Denmark.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 24.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.
 Roller Smith Corp., 1825 W. Market St., Bethlehem, Pa.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

INDICATORS—Specific Gravity

BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Beckman, Inc., Arnold O., 1020 Mission St., South Pasadena, Calif.
 Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.
 Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Nuclear Research Corp., Southampton, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
 Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.

INDICATORS—Strain

Allegany Instrument Co., Inc., 1091 Wills Mount, Cumberland, Md.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Bruehl & Kjaer, Naerum, Denmark.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
 Chatillon & Sons, John 85 Cliff St., New York, N. Y.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
 Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
 Ellis Associates, Box 77, Pelham, N. Y.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Heiland Div. of Minneapolis-Honeywell Regulator Co.,
 5200 E. Evans Ave., Denver 22, Colo.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Linden-
 hurst, N. Y. ADV. PG. 510.
 Kelvin & Hughes Ltd., New North Rd., Barkingside,
 Essex, England.
 Kybernates Co., 9 E. 40th St., New York 16, N. Y.
 Manning Maxwell & Moore Inc. Industrial Controls Div.,
 250 E. Main St., Stratford, Conn.
OWEN LABORATORIES, INC., 55 Beacon Place, Pasa-
 dena, Calif. ADV. PG. 680.
 Performance Measurements Co., 15310 W. McNichols,
 Detroit 35, Mich.
POLYPHASE INSTRUMENT CO., East Fourth St.,
 Bridgeport, Penna. ADV. PG. 697.
SANBORN CO., 175 Wyman St., Waltham 54, Mass.
 ADV. PG. 125.
 Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon
 Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Phila-
 delphia 44, Pa.

INDICATORS—Temperature

Allegany Instrument Co., Inc., 1091 Wills Mountain,
 Cumberland, Md.
 Arnoux Corp., Box 34628, Los Angeles, Calif.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio.
 ADV. PG. 504, 505.
 Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38,
 Mass. ADV. PG. 537.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV.
 PG. 430.
 Bendix Aviation Corp., Montrose Div., South Montrose,
 Pa.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20,
 Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Clevel-
 and 14, Ohio. ADV. PG. 478, 479.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van
 Nuys, Calif.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV.,
 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-
 146.
 Electric Auto-Lite Co., The, Champlain St., Toledo 1,
 Ohio.
FENWAL INCORPORATED, Ashland, Mass. ADV. PG.
 371.
 Fielden Instrument Div. of Robertshaw-Fulton Controls
 Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Fischer & Porter Co., 476 Warminster Road, Hatboro,
 Pa.
 Foxboro Co. The, Foxboro, Mass.
 Friez Instrument Division, Bendix Aviation Corp., Balti-
 more 4, Md.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG.
 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GIANNINI & CO., INC., G. M., 918 E. Green St.,
 Pasadena 1, Calif. ADV. PG. 344.
 Heiland Div. of Minneapolis-Honeywell Regulator Co.,
 5200 E. Evans Ave., Denver 22, Colo.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New
 Haven 8, Conn. ADV. PG. 503.
KEARFOTT CO., INC., ENGINEERING & SALES DIV.,
 1378 Main St., Clifton, N. J. ADV. PG. 181.
 Kelvin & Hughes Ltd., New North Rd., Barkingside,
 Essex, England.
 Kybernates Co., 9 E. 40th St., New York 16, N. Y.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia
 44, Pa.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck,
 Conn. ADV. PG. 606.
 Manning, Maxwell & Moore, Inc., Industrial Controls
 Div., 250 E. Main St., Stratford, Conn.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15,
 N. Y.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20,
 Ind.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave.,
 S. Minneapolis 8, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div.,
 2600 Ridgway Rd., Minneapolis 13, Minn.
**MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUS-
 TRIAL DIV.**, Wayne & Windrim Aves., Philadelphia
 44, Pa. ADV. PG. 447.
 Performance Measurements Co., 15310 W. McNichols,
 Detroit 15, Mich.
 Pimex Inc., 18 E. 60th St., New York 22, N. Y.
 Production Research Corp., Thornwood, N. Y.
 Roller Smith Corp., 1825 W. Market St., Bethlehem,
 Pa.
SANBORN CO., 175 Wyman St., Waltham 54, Mass.
 ADV. PG. 125.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main
 St., New Rochelle, N. Y. ADV. PG. 618.
 Servo Corp. of America, 20-20 Jericho Turnpike, New
 Hyde Park, N. Y.
 Shand and Jurs Co., Sub. of General Precision Equip-
 ment Corp., Carleton & Eighth Sts., Berkeley 10,
 Calif.
 Tempil Corp., 132 W. 22nd St., New York 11, N. Y.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave.,
 Philadelphia 44, Pa.
 U. S. Gauge Div., American Machine & Metals, Inc.,
 Sellersville, Pa.

United Electric Controls Co., 85 School St., Watertown
 72, Mass.
 Victory Engineering Corp., 101 Springfield Rd., Union,
 N. J.
 West Instrument Corp., 4363 W. Montrose Ave., Chi-
 cago 41, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868,
 Pittsburgh 30, Pa. ADV. PG. 205-216.
 Weston Electrical Instrument Corp., A Sub. of Daystrom,
 Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
WESTRONICS, INC., 3605 McCart St., Fort Worth,
 Texas. ADV. PG. 554.
 Yellow Springs Instrument Co., Inc., P. O. Box 106,
 Yellow Springs, Ohio.

INDICATORS—Timing

Abrams Instrument Corp., 600-620 E. Shiawassee St.,
 Lansing, Mich.
 Aero Instrument Co., 11423 Vanowen St., North Holly-
 wood, Calif.
**ALDEN ELECTRONIC & IMPULSE RECORDING EQUIP-
 MENT CO.**, Box 125, Westboro, Mass. ADV. PG.
 566.
 Allegany Instrument Co., Inc., 1091 Wills Mountain,
 Cumberland, Md.
 Bendix Aviation Corp., Montrose Div., South Montrose,
 Pa.
 Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC.,
 Dept. G-13, 2200 Wright Ave., Richmond 3, Calif.
 ADV. PG. 73-80.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20,
 Conn.
 Bristol Motor Div., Vocaline Co. of America, Inc., Old
 Saybrook, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Clevel-
 and 14, Ohio. ADV. PG. 478, 479.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave.,
 North Hollywood, Calif. ADV. PG. 168.
 Cramer Controls Corp., Box 13, Centerbrook, Conn.
 Dynapar Corp., 5150 Church St., Skokie, Ill.
 Elesta Ltd., Bad Ragaz, Switzerland.
HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury,
 Conn. ADV. PG. 531.
HAYDON MFG. CO., INC., 245 E. Elm St., Torrington,
 Conn. ADV. PG. 157.
 I-L-S Instrument Corp., 4525 W. 160th St., Cleveland
 11, Ohio.
 Ingraham Co., E., Bristol, Conn.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5,
 Ill.
 Pantek Co., Box 212, El Segundo, Calif.
 Ransom Research, P. O. Box 382, San Pedro, Calif.
STANDARD ELECTRIC TIME CO., 97 Logan St., Spring-
 field, Mass. ADV. PG. 143.
 Waltham Watch Co., Instrument & Industrial Products,
 Waltham 54, Mass.

INDICATORS—Torque

Allegany Instrument Co., Inc., 1091 Wills Mountain,
 Cumberland, Md.
 Bendix Aviation Corp., Montrose Div., South Montrose,
 Pa.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20,
 Conn.
 Bruel & Kjaer, Naerum, Denmark.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Clevel-
 and 14, Ohio. ADV. PG. 478, 479.
 Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
 Crescent Engineering & Research Co., 5440 N. Peck Rd.,
 El Monte, Calif.
 Dayton Corp., 216 S. Main St., Dayton, Ohio.
 Foxboro Co., The, Foxboro, Mass.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Heiland Div. of Minneapolis-Honeywell Regulator Co.,
 5200 E. Evans Ave., Denver 22, Colo.
 Highland Engineering, 1732 Berkeley, Santa Monica,
 Calif.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Linden-
 hurst, N. Y. ADV. PG. 510.
 Kelvin & Hughes Ltd., New North Rd., Barkingside,
 Essex, England.
 Magtrol, Inc., 38 Virginia Place, Buffalo, N. Y.
POLYPHASE INSTRUMENT CO., East Fourth St., Bridge-
 port, Penna. ADV. PG. 697.
SANBORN CO., 175 Wyman St., Waltham 54, Mass.
 ADV. PG. 125.
 Sunshine Scientific Instrument, 1810 Grant Ave., Phila-
 delphia 15, Pa.
 Teller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
WATERS MANUFACTURING INC., Boston Post Rd., Way-
 land, Mass. ADV. PG. 258, 259.

INDICATORS—Turbidity

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38,
 Mass. ADV. PG. 537.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20,
 Conn.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15,
 N. Y.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.

INDICATORS—Vacuum

Alfred Electronics, 897 Commercial St., Palo Alto, Calif.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

Bendix Aviation Corp., Montrose Div., South Montrose, Pa.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20,
 Conn.
 Central Scientific Co., 1700 Irving Park Rd., Chicago 13,
 Ill.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre
 Villa, Pasadena 15, Calif.
 Consolidated Electrodynamics Corp., Rochester Div., Roch-
 ester 3, N. Y.
CONTINENTAL ELECTRIC CO., 6 N. Michigan Ave.,
 Chicago 2, Ill. ADV. PG. 496.
 Electronic Research Labs., 85 Surrey St., Brighton 35,
 Mass.
 Foxboro Co., The, Foxboro, Mass.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV.
 PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GIANNINI & CO., INC., G. M., 918 E. Green St.,
 Pasadena 1, Calif. ADV. PG. 344.
 Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
 Hastings-Raydist, Inc., Hampton 9, Va.
 High Vacuum Equipment Corp., 2 Churchill Rd., Hing-
 ham, Mass.
KEARFOTT CO., INC., ENGINEERING & SALES DIV.,
 1378 Main St., Clifton, N. J. ADV. PG. 181.
 Kinney Mfg. Div. of The New York Air Brake Co.,
 3529 Washington St., Boston, Mass.
 Manning, Maxwell & Moore, Inc., Aircraft Products Div.,
 Danbury, Conn.
 Manning, Maxwell & Moore, Inc., Industrial Controls
 Div., 250 E. Main St., Stratford, Conn.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave.,
 S. Minneapolis 8, Minn.
**MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUS-
 TRIAL DIV.**, Wayne & Windrim Aves., Philadelphia
 44, Pa. ADV. PG. 447.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton
 61, Mass. ADV. PG. 102.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New
 York 1, N. Y.
 Omega Instrument Co., Box 495M, Pasadena, Calif.
 Process & Instruments, 15 Stone Ave., Brooklyn 33,
 N. Y.
 Research Electronics Laboratories, Roslyn, Pa.
 Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St.,
 Oceanside, Calif.
VEECO VACUUM CORP., 86 Denton Ave., New Hyde
 Park, N. Y. ADV. PG. 644.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chi-
 cago 10, Ill.

INDICATORS—Volume

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20,
 Conn.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 Liquidometer Corp., The, Skillman Ave. at 36th St.,
 Long Island City 1, N. Y.
 Maxson Instruments, Div. of The W. L. Maxson Corp.,
 47-37 Austell Place, Long Island City 1, N. Y.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div.,
 2600 Ridgway Rd., Minneapolis 13, Minn.
 Performance Measurements Co., 15310 W. McNichols,
 Detroit 35, Mich.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.
 Weston Electrical Instrument Corp., A Sub. of Daystrom,
 Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

INDICATORS—Weight

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20,
 Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Clevel-
 and 14, Ohio. ADV. PG. 478, 479.
 Crescent Engineering & Research Co., 5440 N. Peck
 Rd., El Monte, Calif.
**DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVER-
 SAL MATCH CORP.**, 472 Paul Ave., Ferguson 21, Mo.
 ADV. PG. 649.
 Dayton Corp., 216 S. Main St., Dayton, Ohio.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van
 Nuys, Calif.
 Foxboro Co., The, Foxboro, Mass.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Kistler Instrument Corp., 15 Webster St., North Tona-
 wanda, N. Y.
 Liquidometer Corp., The, Skillman Ave. at 36th St.,
 Long Island City 1, N. Y.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div.,
 2600 Ridgway Rd., Minneapolis 13, Minn.
 Nuclear Research Corp., Southampton, Pa.
 Performance Measurements Co., 15310 W. McNichols,
 Detroit 15, Mich.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.
 Streeter-Amet Co., Grayslake, Ill.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9,
 N. J.

INDICATORS—Wind Direction—Electronic

Aeronautical Communications Equipment, Inc., 3090 S.W.
 37th Ave., Miami 33, Fla.
 Beckman & Whitley, Inc., 913 San Carlos Ave., San
 Carlos, Calif.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20,
 Conn.

FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Ford Instrument Co., Div. of Sperry Rand Corp., 31-10 Thomson Ave., Long Island City 1, N. Y.
Friez Instrument Division, Bendix Aviation Corp., Baltimore 4, Md.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.

INDICATORS—Wind Speed—Electronic

Aeronautical Communications Equipment, Inc., 3090 S.W. 37th Ave., Miami 33, Fla.
Beckman & Whitley, Inc., 913 San Carlos Ave., San Carlos, Calif.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Friez Instrument Division, Bendix Aviation Corp., Baltimore 4, Md.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
Hastings-Raydist, Inc., Hampton 9, Va.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.

INDUCTANCES—Flyback

See TRANSFORMERS—Flyback

INDUCTANCES—Magnet

See COILS—Magnet

INDUCTANCES—Metallized Glass

See COILS—Metallized Glass

INDUCTANCES—Motor & Generator Field

See COILS—Motor & Generator Field

INDUCTANCES—Power & a-f Coil Windings

See TRANSFORMER WINDINGS

INDUCTANCES—Printed Circuit

See TRANSFORMERS—Printed Circuit

INDUCTANCES—r-f & i-f Receiving or Transmitting

See COILS—Choke

INDUCTANCES—Relay

See COILS—Relay

INDUCTANCES—Speaker Voice Coil

See COILS—Speaker Voice Coil

INDUCTANCES—Television Focusing

See COILS—Television Focusing

INDUCTANCES—Toroidal

See TOROIDS

INDUCTANCES—Variable

1. Saturable Reactors
2. Mechanical

ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. 1. ADV. PG. 600.
Avion Division, ACF Industries, Inc., 11 Park Place, Paramus, N. J. 1.
BIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. 1. ADV. PG. 286.
BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. 2. ADV. PG. 350, 351.
C. G. S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn. 1.
Caddell Burns Mfg. Co., 40 East Second St., Mineola, N. Y.
California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. 1-2.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn. 1.
CELCO, Island Ave., Mahwah, N. J. 1-2. ADV. PG. 138, 139.
Coil Company of America, Inc., 207 Washington St., Northvale, N. J. 1-2.
CORNING GLASS WORKS, Corning, N. Y. 2. ADV. PG. 390.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill. 1.
Delevan Electronics Corp., Roycroft Campus, East Aurora, N. Y.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. 1. ADV. PG. 595.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. 1. ADV. PG. 649.
Electran Mfg. Co., 1901 N. Clybourn, Chicago, Ill. 1.
ELECTRO ENGINEERING WORKS, 401 Preda St., San Leandro, Calif. 1. ADV. PG. 512.
ERA ELECTRIC CORP., 314 Valley Brook Ave., Lyndhurst, N. J. 1. ADV. PG. 665.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa. 1.

Fisher Engineering, Inc., 2060 U. S. East, P. O. Box 327, Huntington, Ind. 1.
FRED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
Gates Radio Co., Quincy, Ill.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. 2. ADV. PG. 316, 317.
Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. 1. ADV. PG. 454, 455.
Keystone Products Co., 904-6 23rd St., Union City, N. J. 1.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. 1. ADV. PG. 358.
Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y. 1-2.
MACARR, INC., 2543 Boston Rd., Bronx 67, N. Y. 1. ADV. PG. 640.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. 1. ADV. PG. 389.
Melectronics, 1372-74 E. Walnut St., Pasadena, Calif. 1.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. 1. ADV. PG. 369, 370.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. 1.
NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
NORTH HILLS ELECTRIC CO., INC., 402 Sagamore Ave., Mineola, N. Y. 2. ADV. PG. 428.
Peerless Electrical Div. of Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif. 1.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y. 1.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. 1. ADV. PG. 250, 251.
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. 2. ADV. PG. 522.
STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. 1. ADV. PG. 644.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. 1. ADV. PG. 549.
Tele-Coil Co., Inc., 2733 Saunders St., Camden 5, N. J. 2.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y. 1-2.
Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. 1.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. 1. ADV. PG. 405.
Transformer Specialty Co., Inc., Bala-Cynwyd, Pa. 1.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. 1. ADV. PG. 21-24.
Tranconic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif. 1.
Tronic Coil Winding Co., Inc., 58 Wesley St., Waterbury, Conn. 1.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. 1-2. ADV. PG. Second Cover.
VARI-L CO., INC., P. O. Box 1433, Stamford, Conn. 1. ADV. PG. 608.
VECTROL ENGINEERING, INC., P. O. Box 1089, Stamford, Conn. 1. ADV. PG. 632.
Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn. 1.

INDUCTANCES—Width Control

See COILS—Width Control

INDUCTION HEATING

See HEATING—Induction

INFRA-RED DRYING OVEN

See OVENS

INKS—Marking

Crown Industrial Products Co., 713 Amsterdam St., Woodstock, Ill.
Cudner & O'Connor Co., 4035 W. Kinzie Ave., Chicago 24, Ill.
Diamond-Union Stamp Works, 81 Washington St., Boston 8, Mass.
Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
KRENGEL MFG. CO., INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 690.
Markal Co., 3052 W. Carroll Ave., Chicago 12, Ill.
Marsh Stencil Machine Co., 46 Marsh Bldg., Belleville, Ill.
Matthews & Co., Jas. H., 3926 Forbes St., Pittsburgh 13, Pa.
Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.
Phillips Process Co., Inc., 192 Mill St., Rochester 14, N. Y.
Pittsburgh Plate Glass Co., 1 Gateway Center, Pittsburgh 22, Pa.

INSPECTION EQUIPMENT—Lighting

Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.

SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Wappler, Inc., 27-10 Astoria Blvd., Long Island City 2, N. Y.

INSTRUMENT PARTS—Precision

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
American Laubscher Corp., 250 W. 57th St., New York 19, N. Y.
AMERICAN LAVA CORP., Cherokee Blvd., & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 311.
Barnes Development Co., 213 W. Baltimore Pike, Lansdowne, Pa.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 311.
Bendix Aviation Corp., Montrose Div., South Montrose, Pa.
BOEHME, INC., H. O., 915 Broadway, New York 10, N. Y. ADV. PG. 556.
BOWMAR INSTRUMENT CORP., 2415 Pennsylvania St., Fort Wayne, Ind. ADV. PG. 538, 539.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
Croname, Inc., 1747 Grace St., Chicago 13, Ill.
Daco Instrument Co., Tillary & Prince Sts., Brooklyn 1, N. Y.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
Eastern Specialty Co., Philadelphia 40, Pa.
Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
GIBSON CO., WILLIAM D., THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 311.
GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
Greer Stop Nut Co., 2620 W. Fluornoy St., Chicago 12, Ill.
GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
H. & H. Products Co., 766 Ramsey Ave., Hillside, N. J.
Halax Corp., P. O. Box 425, Los Gatos, Calif.
Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
Jodee Plastics Corp., 213 Shepherd Ave., Brooklyn 8, N. Y.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
Maurer, Inc., J. A. 37-01 31st St., Long Island City 1, N. Y.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 311.
Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 311.
Precise Instrument Parts Co., 4520 San Fernando Rd., Glendale 4, Calif.
RAYMOND MANUFACTURING CO., Corry Pa., ADV. PG. 311.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
Research Development Manufacture, Inc., 429 E. Collom St., Philadelphia 44, Pa.
Rolian Electric Co., 8233 S. Princeton Ave., Chicago 201, Ill.
Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 311.
Sinclair Mfg. Co., Chertley, Mass.
Staver Co., Inc., The, 48 N. Saxton Ave., Bay Shore, N. Y.
Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.
Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
Tru-Connector Corp., 416 Union St., Lynn, Mass.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Zagora Gears, Inc., 1327 S. Mint St., Charlotte 3, N. C.

INSTRUMENTS—ELECTRICAL MEASURING

Ammeters to Wattmeters Inclusive

AMMETERS

See also Microammeters
Micro-Microammeters
Milliammeters

American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
BEEDE ELECTRICAL INSTRUMENT CO., INC., Penacook, N. H. ADV. PG. 626.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Columbia Electric Mfg. Co., 4519 Hamilton Ave., N. E., Cleveland 14, Ohio.
DE JUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
Electric Design & Mfg. Corp., Burlington, Iowa.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Greibach Instruments Corp., An Associate of Gulton Industries, Metuchen, N. J.
Helipot Corp., Newport Beach, Calif.
HOYT ELECTRICAL INSTRUMENT WORKS, INC., 42 Carleton St., Cambridge 42, Mass. ADV. PG. 587.
INTERNATIONAL INSTRUMENTS INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 480.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Phaoston Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
Q.V.S., Inc., 20 N. 15th St., East Orange, N. J.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
Roller-Smith Corp., 1825 Market St., Bethlehem, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
SHURITE METERS, 95-B Hamilton St., New Haven 8, Conn. ADV. PG. 655.
Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
Sterling Mfg. Co., 7201 Wentworth, Cleveland, Ohio.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

AMMETERS—r-f

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

AUDIOMETERS

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
Allison Laboratories, Inc., 14185 Skyline Drive, Puente, Calif.
Aurex Corp., 1117 N. Franklin St., Chicago 10, Ill.
Audivox, Inc., 123 Worcester St., Boston 18, Mass.
Beltone Hearing Aid Co., 2900 W. 36th St., Chicago 32, Ill.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
Grason-Stadler Co., West Concord, Mass.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
Maico Co., Inc., 21 North Third St., Minneapolis, Minn.
Nichols & Clark, Inc., P. O. 321 Newburyport Turnpike, Danvers, Mass.

BRIDGES—Electrical

B & F Instruments Inc., 4732 N. Broad St., Philadelphia 41, Pa.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Barnes Development Co., 213 W. Baltimore Pike, Lansdowne, Pa.
Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., Box 10, Morristown, N. J.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 236.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
Julie Research Laboratories, 556 W. 168th St., New York 32, N. Y.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Muirhead & Co., Ltd., Beckenham, Kent, England.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
STITCH CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Tech Laboratories, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

BRIDGES—Impedance

ACTION LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 427.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Bruehl & Kjaer, Naerum, Denmark.
Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.
Chesapeake Instrument Corp., Shadyside, Md.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
Clough-Bregle Co., 6014 N. Broadway, Chicago, Ill.
Electro-Measurements, Inc., 7524 S. W. Macadam, Portland 1, Ore.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
Julie Research Laboratories, 556 W. 168th St., New York 32, N. Y.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.

Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Muirhead & Co., Ltd., Beckenham, Kent, England.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
Radex Corp., 2076 N. Elston Ave., Chicago 14, Ill.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Tech Laboratories, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.

BRIDGES—Inductance

Alpha Instrument Co., 43 Hempstead St., New London, Conn.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Bruehl & Kjaer, Naerum, Denmark.
Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.
Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
Clough-Bregle Co., 6014 N. Broadway, Chicago, Ill.
Electro-Measurements, Inc., 7524 S. W. Macadam, Portland 1, Ore.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
Metronix, Inc., Mill Lane, Waterford, Conn.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.

BRIDGES—vhf

ALFORD MFG. CO., INC., 299 Atlantic Ave., Boston, Mass. ADV. PG. 398.
BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 427.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 236.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
Julie Research Laboratories, 556 W. 168th St., New York 32, N. Y.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.

CALIBRATORS—Sweep

American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
Tektronix, Inc., P. O. Box 831, Portland 7, Ore.

CALIBRATORS—uhf

COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
Metronix, Inc., Mill Lane, Waterford, Conn.

COMPARATORS—Automatic Resistance

Barnes Development Co., 213 W. Baltimore Pike, Lansdowne, Pa.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.
Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.

FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Foxboro Co., The, Foxboro, Mass.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Hunter-Bristol Corp., Bristol, Pa.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.

COMPARATORS—Circuit Linearity

Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo.

COMPARATORS—Voltage

GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684.
KEPCO LABS., INC., 131-38 Sanford Ave., Flushing 55, N. Y. ADV. PG. 45-48.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Metronix, Inc., Mill Lane, Waterford, Conn.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
Performance Measurements Co., 15310 W. McNichols, Detroit 15, Mich.
RHEEM ELECTRONICS DIVISION, 7777 Industry Ave., Rivera, Calif. ADV. PG. 654.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24.

GALVANOMETERS

ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.
Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., Box 10, Morristown, N. J.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.
Century Electronics & Instruments Inc., P. O. Box 6216, Pine Station, Tulsa 10, Okla.
Coleman Instruments, Inc., 318 Madison St., Maywood, Ill.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
G-M Laboratories, Inc., 4336 N. Knox Ave., Chicago, Ill.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Hathaway Instrument Div., Hamilton Watch Co., 5800 E. Jewell Ave., Denver 22, Colo.
Helland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth 7, Texas. ADV. PG. 524.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 503.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
Midwestern Instruments, 41st & Sherman Rd., Tulsa, Okla.
Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 26, Ill.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
Pimex Inc., 18 E. 60th St., New York 22, N. Y.
Q.V.S., Inc., 20 N. 15th St., East Orange, N. J.
Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
Simpson Electric Co., Div., American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
Texas Division, Brush Electronics Co., 3732 Westheimer Rd., Houston 6, Texas.
Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

INSTRUMENTS—Panel

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 693.
Automatic Timing & Controls, Inc., King of Prussia, Pa.
Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.

Bendix Aviation Corp., Montrose Div., South Montrose, Pa.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
Electric Design & Mfg. Co., Burlington, Iowa.
Electro-Measurements, Inc., 7524 S. W. Macadam, Portland 1, Ore.
Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 480.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 503.
Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
Manning, Maxwell & Moore, Inc., Industrial Products Div., 250 E. Main St., Stratford, Conn.
Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Phaestron Instrument & Electric Co., 151 Pasadena Ave., South Pasadena, Calif.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
Roller-Smith Corp., 1825 Market St., Bethlehem, Pa.
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
SHURITE METERS, INC., 35-B Hamilton St., New Haven 8, Conn. ADV. PG. 655.
Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
Technical Electronics Corp., 4060 Ince Blvd., Culver City, Calif.
Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
U. S. Gauge Div. of American Machine & Metals, Inc., Sellersville, Pa.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

INSTRUMENTS—Ultrasonic

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
Atlantic Research Corp., 901 Columbus, Alexandria, Va.
BIRCHER CORP., 4371 Valley Blvd., Los Angeles 32, Calif. ADV. PG. 636.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Branson Instruments, Inc., 1 Brown House Rd., Stamford, Conn.
Chesapeake Instrument Corp., Shadyside, Md.
Corbett Science Laboratories, F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
DEMORNAY-BONARDI, INC., 780 S. Arroya Parkway, Pasadena, Calif. ADV. PG. 374, 375.
Dice Co., J. W., Englewood, N. J.
Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.
Piezo Products Co., Whitney St., Sherborn, Mass.

RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

MAGNETOMETERS

Hycan Electronics, Inc., P. O. Bin D, Pasadena, Calif.
Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
RAWSON ELECTRICAL INSTRUMENT CO., 11 Potter St., Cambridge 42, Mass. ADV. PG. 528.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. 174, 175, 411.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

MEGOhmmETERS

ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 570.
Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Valley Stream, N. Y. ADV. PG. 679.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
PRECISE MEASUREMENTS CO., R. D. #1, Millbrook Rd., Flemington, N. J. ADV. PG. 399.
SLAUGHTER COMPANY, Piqua 9, Ohio. ADV. PG. 494.
STICHT CO., INC. HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

METERS—Electronic Capacitance

American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 159.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
MacLeod & Hanopol Inc., 10 Roland St., Charlestown 29, Mass.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
Metronix, Inc., Mill Lane, Waterford, Conn.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.

METERS—Field Strength

Airmec, Ltd., High Wycombe, Buckinghamshire, England.
Antlab, 4950 N. High St., Columbus 14, Ohio.
Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 388.
Ferris Instrument Co., 110 Cornelia St., Boonton, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. ADV. PG. 574.
Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 94.
Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.

Nems-Clarke, Inc., Silver Spring, Md.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
Simpson Electric Co., Div. American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
STODDARD AIRCRAFT RADIO CO., 6444 Santa Monica Blvd., Hollywood 38, Calif. ADV. PG. 498, 499.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.

METERS—f-m Deviation See Also Monitors

A.R.F. Products, Inc., 7627 Lake St., River Forest, Ill.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
New London Instrument Co., P. O. Box 189, New London, Conn.

METERS—Frequency

Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N.Y.
Admittance-Namco Corp., Farmingdale, N. Y.
Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
AIRCOM INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.
Airmec, Ltd., High Wycombe, Buckinghamshire, England.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md., ADV. PG. 297-300.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
Devtron Engineering, 1 Winslow St., Redwood City, Calif.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
Dubrow Development Co., 235B Penn St., Burlington, N. J.
DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
Dynapar Corp., 5150 Church St., Skokie, Ill.
Elm Laboratories, 18 South Broadway, Dobbs Ferry, N. Y.
Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Heliport Corp., Newport Beach, Calif.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 66.
Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles 7, Calif.
Hupp Instru/Mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 503.
Jowit Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
LAMPKIN LABORATORIES, INC., Bradenton 1, Fla. ADV. PG. 623.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Metronix, Inc., Mill Lane, Waterford, Conn.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
New London Instrument Co., P. O. Box 189, New London, Conn.
NORTHEASTERN ENGINEERING INC., Manchester, N. H. ADV. PG. 518, 519.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 200-202.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
Pantek Co., Box 212, El Segundo, Calif.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
Ransom Research P. O. Box 382, San Pedro, Calif.
Riverbank Laboratories, P. O. Box 65, Geneva, Ill.
Roller Smith Corp., 1825 W. Market St., Bethlehem, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
Shasta Div. of Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
Sullivan Ltd., H. W. 80 Shore Rd., Port Washington, N. Y.
Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. ADV. PG. 630.
WAUGH ENGINEERING CO., 7842 Burnet Ave., Van Nuys, Calif. ADV. PG. 663.
Wells Co., Gary, 361 Rocaway Ave., Valley Stream, N. Y.
Westberg Mfg. Co., 144 S. Coombs St., Napa, Calif.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30 Pa. ADV. PG. 205-216.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

METERS—Impedance

ACTION LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
ADVANCE ELECTRONICS LAB., INC., 249-259 Terhune Ave., Passaic, N. J. ADV. PG. 420.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Sullivan Ltd., H. W. 80 Shore Rd., Port Washington, N. Y.

METERS—Modulation

See Also Monitors—Modulation

American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.

BEEDE ELECTRICAL INSTRUMENT CO., INC., Penacook, N. H. ADV. PG. 626.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 388.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
LAMPKIN LABORATORIES, INC., Bradenton 1, Fla. ADV. PG. 623.
New London Instrument Co., P. O. Box 189, New London, Conn.
Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.

METERS—Null

Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BEEDE ELECTRICAL INSTRUMENT CO., INC., Penacook, N. H. ADV. PG. 626.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
Borden Engineering Co. Div. of M. J. Johnson Aircraft Engineering Co., Box 10 Morristown, N. J.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
DEJUR-AMSCO CORP., Northern Blvd., at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
Deltron, Inc., 2905 N. Leithgow St., Philadelphia 33, Pa.
Electric Design & Mfg. Corp., Burlington, Iowa.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 66.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 503.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
Millivac Instrument Corp., 2315, Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
MINNEAPOLIS-HONEYWELL, BOSTON DIV., 1400 Soldiers Field Rd., Boston 15, Mass. ADV. PG. 445.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Min.
Phaostroon Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
Q.V.S. Inc., 20 N. 15th St., East Orange, N. J.
Roller Smith Corp., 1825 W. Market St., Bethlehem, Pa.
Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
WATERS MANUFACTURING, INC., Boston Post Rd., Wayland, Mass. ADV. PG. 258, 259.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

METERS—Output

Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BEEDE ELECTRICAL INSTRUMENT CO., INC., Penacook, N. H. ADV. PG. 626.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
DE JUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 658, 659.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.

HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 66.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
 Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
 Northeast Electronics Corp., P. O. Box 425, Municipal Airport, Concord, N. H.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Q.V.S. Inc., 20 N. 15th St., East Orange, N. J.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
 Scaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
 Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.
 WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

METERS—Panel

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
 American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BEEDE ELECTRICAL INSTRUMENT CO., INC., Penacook, N. H. ADV. PG. 626.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
DE JUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
 Electric Design & Mfg. Corp., Burlington, Iowa.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Greibach Instruments Corp., An Associate of Gulton Industries, Metuchen, N. J.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 66.
HOYT ELECTRICAL INSTRUMENT WORKS, INC., 42 Carleton St., Cambridge 42, Mass. ADV. PG. 587.
INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 480.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 503.
 Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
 Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
 Q. V. S. Inc., 20 N. 15th St., East Orange, N. J.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
 Roller-Smith Corp., 1825 W. Market St., Bethlehem, Pa.
 Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
SHURITE METERS, 35-B Hamilton St., New Haven 8, Conn. ADV. PG. 655.
 Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
 Sterling Mfg. Co., 7201 Wentworth, Cleveland 2, Ohio.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.
 WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
WATERS MANUFACTURING, INC., Boston Post Rd., Wayland, Mass. ADV. PG. 258, 259.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

METERS—Phase Angle

ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
ADVANCE ELECTRONICS LAB., INC., 249-259 Terhune Ave., Passaic, N. J. ADV. PG. 420.
 Airmec Ltd., High Wycombe, Buckinghamshire, England.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
 Deltron, Inc., 2905 N. Leithgow St., Philadelphia 33, Pa.

Eastern Specialty Co., Philadelphia 40, Pa.
 Electronics & Avionics Div. of The Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
 Link Aviation, Inc., Binghamton, N. Y.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
 Nagog Associates, Inc., Littleton, Mass.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 North Atlantic Industries, Inc., 603 Main St., Westbury, N. Y.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Winco Electronics, 644 N. Hawthorne Blvd., Hawthorne, Calif.

METERS—Power Factor

American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
 Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
PHYSICS RESEARCH LABS, INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
 Roller-Smith Corp., 1825 W. Market St., Bethlehem, Pa.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

METERS—Q

Alpha Instrument Co., 43 Hempstead St., New London, Conn.
BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 427.
 Brunswick Instruments, P. O. Box 813, New Brunswick, N. J.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.

METERS—RF Power

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
 Brunswick Instruments, P. O. Box 813, New Brunswick, N. J.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 380, 381.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 658, 659.
 Electronics & Avionics Div. of The Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 66.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
JONES ELECTRONICS CO., INC., M. C., 185 N. Main St., Bristol, Conn. ADV. PG. 376.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.

POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
 WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.

METERS—Standing Wave Ratio

AIRCOM INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.
 Alpha Instrument Co., 43 Hempstead St., New London, Conn.
 Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
 American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 Bruel & Kjaer, Naerum, Denmark.
 California Technical Industries, 1421 Old Country Rd., Belmont, Calif.
 Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 380, 381.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DEMORRAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
 Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
JONES ELECTRONICS CO., INC., M. C., 185 N. Main St., Bristol, Conn. ADV. PG. 376.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 Pennsylvania Testing Lab., Inc., Doylestown, Pa.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
 Solartron, Inc., Western Div., 10761 Burbank Blvd., North Hollywood, Calif.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
 Waveline, Inc., Box 470, Caldwell, N. J.

METERS—Wave

Airmec Ltd., High Wycombe, Buckinghamshire, England.
AMERAC, INC., 116 Topsfield Rd., Wrentham, Mass. ADV. PG. 412.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KEARFOTT CO., INC., WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
LAVIDE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 522.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
 Pennsylvania Testing Lab., Inc., Doylestown, Pa.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
 Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Waveline, Inc., Box 470, Caldwell, N. J.

METERS—X-Ray Intensity

BRACKE-SEIB X-RAY CO., INC., 16 Pelham Bay Parkway, Pelham Manor, N. Y. ADV. PG. 590.
 Electronic Products Co., 111 E. Third St., Mt. Vernon, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
VICTOREEN INSTRUMENT CO., COMPONENTS DIV., 5806 Hough Ave., Cleveland 3, Ohio. ADV. PG. 366.
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

MICROAMMETERS

American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 3, N. Y. ADV. PG. 691.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
BEEDE ELECTRICAL INSTRUMENT CO., INC., Penacook, N. H. ADV. PG. 626.
 Borden Engineering Co. Div. of M. J. Johnson Aircraft Engineering Co., Box 10 Morristown, N. J.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Bruel & Kjaer, Naerum, Denmark.
 Electric Design & Mfg. Corp., Burlington, Iowa.
ELECTRONIC MEASUREMENT CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Greibach Instruments Corp., An Associate of Gulton Industries, Metuchen, N. J.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 66.
HOYT ELECTRICAL INSTRUMENT WORKS, 42 Carleton St., Cambridge 42, Mass. ADV. PG. 587.
INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 480.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
 Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
 Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, Calif.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
 Q.V.S. Inc., 20 N. 15th St., East Orange, N. J.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
 Roller-Smith Corp., 1825 W. Market St., Bethlehem, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
 Simpson Electric Co. Div., American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Triplett Electrical Instrument Co., Harmon Road, Bluffton, Ohio.
 WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
WATERS MANUFACTURING, INC., Boston Post Rd., Wayland, Mass. ADV. PG. 258, 259.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Calif. ADV. PG. 205-216.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

MICROFARADMMETERS

American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 159.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

MICRO-MICROAMMETERS

American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Bruel & Kjaer, Naerum, Denmark.
CURTISS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
 Greibach Instruments Corp., An Associate of Gulton Industries, Metuchen, N. J.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Research Electronics Laboratories, Inc., Roslyn, Pa.
 Simpson Electric Co. Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

MILLIAMMETERS

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BEEDE ELECTRICAL INSTRUMENT CO., INC., Penacook, N. H. ADV. PG. 626.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Electric Design & Mfg. Corp., Burlington, Iowa.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
 Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 66.
HOYT ELECTRICAL INSTRUMENT WORKS, 42 Carleton St., Cambridge 42, Mass. ADV. PG. 587.
INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 480.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Manning, Maxwell & Moore, Inc., Industrial Products Div., 250 E. Main St., Stratford, Conn.
 Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
 Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
 Q. V. S. Inc., 20 N. 15th St., East Orange, N. J.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
 Roller-Smith Corp., 1825 W. Market St., Bethlehem, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
SHURITE METERS, 35-B Hamilton St., New Haven 8, Conn. ADV. PG. 655.
 Simpson Electric Co. Div., American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
 Sterling Mfg. Co., 7201 Wentworth, Cleveland 2, Ohio.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.
 WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
 Welch Scientific Co., W. M., 15-15 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

MILLIVOLTMETERS

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 159.
BEEDE ELECTRICAL INSTRUMENT CO., INC., Penacook, N. H. ADV. PG. 626.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
 Electric Design & Mfg. Corp., Burlington, Iowa.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
 Fisher Research Lab., Inc., 1961 University Ave., Palo Alto, Calif.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 66.
HOYT ELECTRICAL INSTRUMENT WORKS, 42 Carleton St., Cambridge 42, Mass. ADV. PG. 587.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 480.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
 Metavac, Inc., 45-68 162nd St., Flushing 58, N. Y.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
 Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London W.C. 2, England. ADV. PG. 560.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
 Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
 Q. V. S. Inc., 20 N. 15th St., East Orange, N. J.
RAWSON ELECTRICAL INSTRUMENTS CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
 Roller-Smith Corp., 1825 W. Market St., Bethlehem, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
 Shasta Div. of Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif.
 Simpson Electric Co., Div. American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
 Specialty Engineering Div., Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.
 WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

OHMMETERS

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
 Alpha Instrument Co., 43 Hempstead St., New London, Conn.
ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 570.
 Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
 Borden Engineering Co. Div. of M. J. Johnson Aircraft Engineering Co., Box 10, Morristown, N. J.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 236.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
 Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Greibach Instruments Corp., An Associate of Gulton Industries, Metuchen, N. J.
 Leeds & Northrup Co., 4970 Stanton Ave., Philadelphia 44, Pa.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
 Northeast Electronics Corp., P. O. Box 425, Municipal Airport, Concord, N. H.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Q. V. S. Inc., 20 N. 15th St., East Orange, N. J.
 Roller-Smith Corp., 1825 W. Market St., Bethlehem, Pa.
SHURITE METERS, 35-B Hamilton St., New Haven 8, Conn. ADV. PG. 655.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

RATIOMETERS

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
 Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
 Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

Hycan Electronics, Inc., P. O. Bin D, Pasadena, Calif.
Julie Research Laboratories, 556 W. 168th St., New York 32, N. Y.
Link Aviation, Inc., Binghamton, N. Y.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
UNION SWITCH & SIGNAL DIV., OF WESTINGHOUSE AIR BRAKE CO., Pittsburgh 18, Pa. ADV. PG. 384, 385.

RECORDERS—Frequency

AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md., ADV. PG. 297-300.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
Edin Co., Inc., 207 Main St., Worcester, Mass.
Epic, Inc., 154 Nassau St., New York 38, N. Y.
Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
Maxson Instruments, Div., of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
SOUND APPARATUS CO., Stirling, N. J. ADV. PG. 20.
Standard Instrument Corp., 657 Broadway, New York 12, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

RECORDERS—Power Level

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Antlab, 4950 N. High St., Columbus 14, Ohio.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Scientific Associates, Inc., 2162 Piedmont Rd., N. E., Atlanta 9, Ga.
SOUND APPARATUS CO., Stirling, N. J. ADV. PG. 20.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

RECORDERS—Telemetry

AMPEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 285.
Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.
Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
DAVIES LABORATORIES DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 10721 Hanna St., Beltsville, Md. ADV. PG. 446.
Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
Foxboro Co., The, Foxboro, Mass.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 559.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Midwestern Instruments, 41 & Sheridan Rd., Tulsa, Okla.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
Shand and Jurs Co., Sub. of General Precision Equipment Corp., Carleton & Eighth Sts., Berkeley 10, Calif.
Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

STANDARDS—Capacitance

BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
Electro-Measurements, Inc., 7524 S.W. Macadam, Portland 1, Ore.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
Simmonds Aerocessories, Inc., Tarrytown, N. Y.
Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

STANDARDS—Frequency

Acme Electronix Div., NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
Airmec Ltd., High Wycombe, Buckinghamshire, England.
AMERICAN TIME PRODUCTS, INC., 580 Fifth Ave., New York 36, N. Y. ADV. PG. 440.
Bassett, Inc., Rex, 1314 N.E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
Collins Radio Co., Cedar Rapids, Iowa.
COLORSTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
D & R, LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. ADV. PG. 698.
Dynapar Corp., 5150 Church St., Skokie, Ill.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
JONES ELECTRONICS CO., INC., M. C., 185 N. Main St., Bristol, Conn. ADV. PG. 376.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
Lewis Co., Inc., E. B., 11 Bragg St., East Hartford 8, Conn.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
New London Instrument Co., P. O. Box 189, New London, Conn.
Norman Laboratories, Ernst, Williams Bay, Wis.
PANORAMIC RADIO PRODUCTS, INC., 30 South Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.
PHILAMON LABORATORIES, INC., 90 Hopper St., Westbury, N. Y. ADV. PG. 95.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
Presto Recording Corp., P. O. Box 500, Paramus, N. J. ADV. PG. 555.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J.

Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.
Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.

Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 468.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.

STANDARDS—Inductance

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Electro-Measurements, Inc., 7524 S.W. Macadam, Portland 1, Ore.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.

STANDARDS—Resistance

EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
Electro-Measurements, Inc., 7524 S.W. Macadam, Portland 1, Ore.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GRAY INSTRUMENT CO., 200 E. Church Lane, Philadelphia 44, Pa. ADV. PG. 643.
Julie Research Laboratories, 556 W. 168th St., New York 32, N. Y.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
Sullivan Ltd., H.W., 80 Shore Rd., Port Washington, N. Y.

TRACERS—Signal

BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.

VOLTMETERS

Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 570.
BEEDE ELECTRICAL INSTRUMENT CO., INC., Penacook, N. H. ADV. PG. 626.
Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Electric Design & Mfg. Corp., Burlington, Iowa.
Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.
Fluke Mfg. Co., Inc., John, 1111 W. Nickerson St., Seattle 99, Wash.
Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Greibach Instruments Corp., An Associate of Gulton Industries, Metuchen, N. J.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Helipot Corp., Newport Beach, Calif.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
HOYT ELECTRICAL INSTRUMENT WORKS, 42 Carleton St., Cambridge 42, Mass. ADV. PG. 887.
Hycan Electronics, Inc., P. O. Bin D, Pasadena, Calif.
INDUSTRIAL DEVICES INC., 982 River Rd., Edgewater, N. J. ADV. PG. 631.
INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 480.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.
Meridian, Inc., 880 Main St., Stamford, Conn.
Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
New England Scientific Instrument Co., Box 408, Cambridge 39, Mass.
Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Phaoston Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.

Precision Development Corp., 2 Neil Court, Oceanside, N. Y.
PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks
Rd., Flemington, N. J. ADV. PG. 399.
Pramid Instrument Corp., 630 Merrick Rd., Lynbrook,
N. Y.

P. V. S. Inc., 20 North 15th St., East Orange, N. J.
Plyway Communications, Inc., 9351 E. 59th St., Ray-
town, Mo.

POTTER ELECTRICAL INSTRUMENT CO., 111 Potter
St., Cambridge 42, Mass. ADV. PG. 528.
Pier-Smith Corp., 1825 W. Market St., Bethlehem, Pa.
Piramo Electric Co., 1201 N. 11th St., Springfield,
Ill.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main
St., New Rochelle, N. Y. ADV. PG. 618.
Pasta Div., Beckman Instruments, Inc., P. O. Box 296,
Station A, Richmond, Calif.

PURITE METERS, 35-B Hamilton St., New Haven 6,
Conn. ADV. PG. 655.

Rampson Electric Co., Div. of American Gage & Machine
Co., 5218 W. Kinzie St., Chicago 44, Ill.
Rerling Mfg. Co., 7201 Wentworth, Cleveland 2, Ohio.
Re-Matic Industries, Inc., 16 Howard Ave., Brooklyn
21, N. Y.

REXAS INSTRUMENTS INCORPORATED, 6000 Lemmon
Ave., Dallas 9, Texas. ADV. PG. 280, 281.

ReLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
Reich Scientific Co., W. M., 1515 Sedgwick St., Chi-
cago 10, Ill.

RESTINGHOUSE ELECTRIC CORP., P. O. Box 868,
Pittsburgh 30, Pa. ADV. PG. 205-216.

Reston Electrical Instrument Corp., Sub. of Daystrom,
Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
Runkers Industries, Inc., 28 School St., Yonkers, N. Y.

OLTMETERS—Electronic

ROCTON LABORATORIES, INC., 533 Main St., Acton,
Mass. ADV. PG. 267.

ROVANCE ELECTRONICS LAB., INC., 249-259 Terhune
Ave., Passaic, N. J. ADV. PG. 420.

Rrmec Ltd., High Wycombe, Buckinghamshire, England.
Rush Instrument Co., 43 Hempstead St., New London,
Conn.

Rto Scientific Co., 855 Commercial St., Palo Alto,
Calif.

RONTON ELECTRONIC LABS., INC., 1226 Flushing Ave.,
Brooklyn 37, N. Y. ADV. PG. 691.

Rutron Engineering, Inc., 1254 W. 6th St., Los Angeles
15, Calif.

ALLANTINE LABORATORIES, INC., Boonton, N. J.
ADV. PG. 159.

Rergen Laboratories, 247 Crooks Ave., Clifton, N. J.
RONTON ELECTRONICS CORP., 738 Speedwell Ave.,
Morris Plains, N. J. ADV. PG. 562.

Ruel & Kjaer, Naerum, Denmark.

RUINO-NEW YORK INDUSTRIES CORP., 460 W. 34th
St., New York 1, N. Y. ADV. PG. 236.

Rough Brengle Co., 6014 North Broadway, Chicago, Ill.
OLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicks-
ville, N. Y. ADV. PG. 532.

COMMUNICATION MEASUREMENTS LAB., INC., 350
Leland Ave., Plainfield, N. J. ADV. PG. 547.

Ronner Scientific Co., 888 Galindo St., Concord, Calif.
Rubrow Development Co., 235B Penn St., Burlington,
N. J.

RuMont Laboratories, Inc., Allen B., 760 Bloomfield
Ave., Clifton, N. J.

Runlap Electronics, 764 Ninth St., Des Moines, Iowa.
Electronic Instrument Co., Inc., 84 Withers St., Brook-
lyn 11, N. Y.

ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple
Ave., Eatontown, N. J. ADV. PG. 556.

Electronic Measurements Corp., 280 Lafayette St., New
York 12, N. Y.

Luke Mfg. Co., Inc., John, 1111 W. Nickerson St.,
Seattle 99, Wash.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

GENERAL RADIO CO., 275 Massachusetts Ave., Cam-
bridge 39, Mass. ADV. PG. 316, 317.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton
Harbor 14, Mich. ADV. PG. 575.

EWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto,
Calif. ADV. PG. 29-40.

Hycon Electronics, Inc., P. O. Bin D, Pasadena, Calif.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St.,
New York 3, N. Y. ADV. PG. 676.

Instrument Electronics Corp., 90 Main St., P. O. Box
830, Port Washington, N. Y.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP.,
INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd.,
Clifton, N. J. ADV. PG. 355-357.

Jackson Electrical Instrument Co., 16 S. Patterson Blvd.,
Dayton 2, Ohio.

Jwil Electronics, Inc., Belfield & Wister, Philadelphia
44, Pa.

JAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J.
ADV. PG. 482, 483.

JEITHLEY INSTRUMENTS, INC., Dept. EB 12415
Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.

INTEL (KAY LAB), P. O. Box 623, 5725 Kearney
Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.

Landverk Electrometer Co., 550 W. Garfield Ave., Glen-
dale 4, Calif.

Larine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.

LEASUREMENTS CORP., Boonton, N. J. ADV. PG. 94.

Leotronix, Inc., Mill Lane, Waterford, Conn.

Levillav Instrument Corp., 2315 Second Ave., Carman,
P. O. Box 997, Schenectady 5, N. Y.

ULLARD OVERSEAS LTD., EQUIPMENT DIV., Century
House, Shaftesbury Ave., London, W. C. 2, England.
ADV. PG. 560.

NORTHEASTERN ENGINEERING, INC., Manchester,
N. H. ADV. PG. 518, 519.

Nortronics Co., Inc., 1015 S. Sixth St., Minneapolis 4,
Minn.

Pameco, Mill Lane, Waterford, Conn.

Precision Development Corp., 2 Neil Court, Oceanside,
N. Y.

Precision Apparatus Co., Inc., 70-31 84th St., Glendale
27, Calif.

Precision Electronics, Inc., 9101 King St., Franklin Park,
Ill.

RADIO CORP. OF AMERICA, RCA ELECTRON TUBE
DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG.
453, Third & Fourth Covers.

Shasta Div., Beckman Instruments, Inc., P. O. Box 296,
Station A, Richmond, Calif.

SIERRA ELECTRONIC CORP., 3885 Bohannon Drive,
Menlo Park, Calif. ADV. PG. 56, 57.

Simpson Electric Co., Div. of American Gage & Machine
Co., 5218 W. Kinzie St., Chicago 44, Ill.

Solartron, Inc., Western Div., 10761 Burbank Blvd.,
North Hollywood, Calif.

Specialty Engineering Div. of Specialty Assembling &
Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.

Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.

TRIO LABORATORIES, INC., 4025 Merrick Rd., Sea-
ford, N. Y. ADV. PG. 687.

Waveforms, Inc., 333 Sixth Ave., New York 14, N. Y.

Western Electro-Acoustic Labs., 204 S. Beverly Drive,
Beverly Hills, Calif.

Weston Electrical Instrument Corp., Sub. of Daystrom,
Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

Yonkers Industries, Inc., 28 School St., Yonkers, N. Y.

VOLT-OHM-MILLIAMMETERS

Alpha Instrument Co., 43 Hempstead St., New London,
Conn.

ANTON ELECTRONIC LABS., INC., 1226 Flushing
Ave., Brooklyn 37, N. Y. ADV. PG. 691.

BEDE ELECTRICAL INSTRUMENT CO., INC., Penacook,
N. H. ADV. PG. 626.

Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th
St., New York 1, N. Y. ADV. PG. 236.

Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.

Electro Instruments, Inc., 3794 Rosecrans, San Diego
10, Calif.

Electronic Instrument Co., Inc., 84 Withers St., Brook-
lyn 11, N. Y.

Electronic Measurements Corp., 280 Lafayette St., New
York 12, N. Y.

Franklin Electronics, Inc., E. Fourth St., Bridgeport,
Pa.

Greibach Instruments Corp., An Associate of Gulton
Industries, Metuchen, N. J.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton
Harbor 14, Mich. ADV. PG. 575.

Instrument Laboratories, 315 W. Walton Place, Chicago
10, Ill.

INTERNATIONAL INSTRUMENTS, INC., P. O. Box
2954, New Haven 15, Conn. ADV. PG. 480.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP.,
INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd.,
Clifton, N. J. ADV. PG. 355-357.

Jowill Electronics, Inc., Belfield & Wister, Philadelphia
44, Pa.

Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20,
Ind.

Millivac Instrument Corp., 2315 Second Ave., Carman,
P. O. Box 997, Schenectady 5, N. Y.

Phaotron Instrument & Electronic Co., 151 Pasadena
Ave., South Pasadena, Calif.

PHYSICS RESEARCH LABS., INC., P. O. Box 555,
Hempstead, N. Y. ADV. PG. 682.

Precision Development Corp., 2 Neil Court, Oceanside,
N. Y.

Precision Apparatus Co., Inc., 70-31 84th St., Glendale
27, Calif.

Precision Electronics, Inc., 9101 King St., Franklin
Park, Ill.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS
DIV., Camden, N. J. ADV. PG. 453, Third & Fourth
Covers.

Simpson Electric Co., Div. of American Gage & Machine
Co., 5218 W. Kinzie St., Chicago 44, Ill.

Superior Instrument Co., 2435 White Plains Rd., New
York 67, N. Y.

Teletronics Laboratory Inc., Kinkel St., Westbury,
N. Y.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868,
Pittsburgh 30, Pa. ADV. PG. 205-216.

Weston Electrical Instrument Corp., Sub. of Daystrom,
Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

Yonkers Industries, Inc., 28 School St., Yonkers, N. Y.

WATTMETERS

Admittance-Namco Corp., Farmingdale, N. Y.

BJ ELECTRONICS, BORG-WARNER CORP., 3300 New-
port Blvd., Santa Ana, Calif. ADV. PG. 541.

Barker & Williamson, 235 Fairfield Ave., Upper Darby,
Pa.

BIRD ELECTRONIC CORP., 1800 E. 38th St., Clevel-
and 14, Ohio. ADV. PG. 278.

Bristol Co., The P. O. Box 1790 EBG, Waterbury 20,
Conn.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th
St., New York 1, N. Y. ADV. PG. 236.

Brunswick Instruments, P. O. Box 813, New Bruns-
wick, N. J.

Chemalloy Electronics Corp., Gillespie Field, Santee,
Calif.

CONTROL ELECTRONICS CO., INC., 1925 New York
Ave., Huntington Station, N. Y. ADV. PG. 680.

CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11,
Calif. ADV. PG. 380, 381.

Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis
6, Ind.

Fluke Mfg. Co., Inc., John, 1111 W. Nickerson St.,
Seattle 99, Wash.

GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton
Harbor 14, Mich. ADV. PG. 575.

JONES ELECTRONICS CO., INC., M. C., 185 N. Main
St., Bristol, Conn. ADV. PG. 376.

New England Scientific Instruments Co., Box 408, Cam-
bridge 39, Mass.

PHYSICS RESEARCH LABS., INC., P. O. Box 555,
Hempstead, N. Y. ADV. PG. 682.

RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter
St., Cambridge 42, Mass. ADV. PG. 528.

Roller-Smith Corp., 1825 W. Market St., Bethlehem,
Pa.

SENSITIVE RESEARCH INSTRUMENT CORP., 310
Main St., New Rochelle, N. Y. ADV. PG. 618.

SIERRA ELECTRONIC CORP., 3885 Bohannon Drive,
Menlo Park, Calif. ADV. PG. 56, 57.

Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great
Neck, N. Y.

Welch Scientific Co., W. M., 1515 Sedgwick St., Chi-
cago 10, Ill.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868,
Pittsburgh 30, Pa. ADV. PG. 205-216.

Weston Electrical Instrument Corp., Sub. of Daystrom,
Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

INSTRUMENTS—Electronic Musical

Kelvin & Hughes Ltd., New North Rd., Barkingside,
Essex, England.

Technical Electronics Corp., 4060 Ince Blvd., Culver
City, Calif.

Tensor Electric Development Co., Centroid Div., 1873
Eastern Parkway, Brooklyn 33, N. Y.

Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13,
Ill.

Valco Mfg. Co., 4700 W. Walton St., Chicago 51,
Ill.

INSTRUMENTS—Graphic Recording

Acme Electronix Div. of NEA Service, Inc., W. Third &
Lakeside, Cleveland 13, Ohio.

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Coun-
try Rd., Mineola, N. Y. ADV. PG. 253.

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIP-
MENT CO., Box 125, Westboro, Mass. ADV. PG. 566.

Allegany Instrument Co., Inc., 1091 Wills Mountain,
Cumberland, Md.

Antlab, 4950 N. High St., Columbus 14, Ohio.

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

Benson-Lehner Corp., 11930 W. Olympic Blvd., Los
Angeles 64, Calif.

Bristol Co., The P. O. Box 1790 EBG, Waterbury 20,
Conn.

Bruehl & Kjaer, Naerum, Denmark.

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Clevel-
and 14, Ohio. ADV. PG. 478, 479.

Consolidated Electrodynamics Corp., 300 N. Sierra Madre
Villa, Pasadena 15, Calif.

Daimo Victor Co., Div. of Textron, Inc., 1515 Industrial
Way, Belmont, Calif.

Electro Instruments, Inc., 3794 Rosecrans, San Diego
10, Calif.

Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis
6, Ind.

Felden Instrument Div. of Robertshaw-Fulton Controls
Co., 2920 N. Fourth St., Philadelphia 33, Pa.

Fischer & Porter Co., 476 Warminster Road, Hatboro,
Pa.

Foxboro Co., The, Foxboro, Mass.

Gaertner Scientific Corp., 1239 Wrightswood Ave., Chi-
cago 14, Ill.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1
River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.

Hogan Laboratories, Inc., 155 Perry St., New York 14,
N. Y.

L & O Research & Development Corp., 134 N. Wayne
Ave., Wayne, Pa.

Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia
44, Pa.

Leupold & Stevens Instruments, Inc., P. O. Box 5082,
Portland 13, Ore.

LIBRASCOPE, INC. 808 Western Ave., Glendale, Calif.
ADV. PG. 183.

Manning, Maxwell & Moore, Inc., Industrial Controls
Div., 250 E. Main St., Stratford, Conn.

Massa Laboratories, Inc., 5 Fottler Rd., Hingham,
Mass.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUS-
TRIAL DIV., Wayne & Windram Aves., Philadelphia 44,
Pa. ADV. PG. 447.

Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago
26, Ill.

REEVES INSTRUMENT CORP., 227 E. 91st St., New
York 28, N. Y. ADV. PG. 437.

SANBORN CO., 175 Wyman St., Waltham 54, Mass.
ADV. PG. 125.

Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
WESTRONICS, INC., 3605 McCart St., Fort Worth, Texas. ADV. PG. 554.

INSTRUMENTS—Panel

INSTRUMENTS—Ultrasonic

See INSTRUMENTS—Electrical Measuring

INSULATING COMPOUNDS

Asphalt & Pitch

Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
BIWAX CORP., 3445 Howard St., Skokie, Ill. ADV. PG. 337.
BORTHIG CO., INC., GEORGE C., P. O. Box 11A, East Rutherford, N. J. ADV. PG. 652.
 Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.
Hi-Test Chemical Corp., 722 64th St., Brooklyn 20, N. Y.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 614.

Coil Dopes

Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
BORTHIG CO., INC., GEORGE C., Box 11-A, East Rutherford, N. J. ADV. PG. 652.
 Chemical Products Corp., King Philip Rd., East Providence, R. I.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.
 Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

Enamel

Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
BORTHIG CO., INC., GEORGE C., P. O. Box 11A, East Rutherford, N. J. ADV. PG. 652.
 Dow Corning Corp., Midland, Mich.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Delaware.
 George Co., P. D., 5200 N. Second St., St. Louis, Mo.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.
 Midland Industrial Finishes Corp., Dept. I-20, Waukegan, Ill.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Silicones Div., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

Impregnating Compounds

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
 American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
 Antara Chemicals Div. of General Aniline Film Corp., 435 Hudson St., New York 14, N. Y.
 Arles Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
BIWAX CORP., 3445 Howard St., Skokie, Ill. ADV. PG. 337.
BORTHIG CO., INC., GEORGE C., P. O. Box 11A, East Rutherford, N. J. ADV. PG. 652.
 Celanese Corp. of America, Plastics Div., 290 Ferry St., Newark 5, N. J.
 Ciba Co., Inc., Plastics Div., Kimberlin, Pa.
 Dow Corning Corp., Midland, Mich.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
 George Co., P. D., 5200 N. Second St., St. Louis, Mo.
 Hi-Test Chemical Corp., 722 64th St., Brooklyn 20, N. Y.

Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Marlette Corp., 37-21 30th St., Long Island City 1, N. Y.
 Minnesota Mining & Mfg. Co., 900 Fauquier Ave., St. Paul 6, Minn.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 National Engineering Products, Inc., 435 Washington Bldg., Washington 5, D. C.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass.
 Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.
 Stevenson Bro. & Co., 110 Race St., Philadelphia 6, Pa.
 Terrell Corp., 19 Lane St., Waltham 54, Mass.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 614.

Insulating Varnish

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Barrett Varnish Co., 1532 S. 50th Court, Cicero 50, Ill.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
BORTHIG CO., INC., GEORGE C., P. O. Box 11A, East Rutherford, N. J. ADV. PG. 652.
 Dow Corning Corp., Midland, Mich.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 General Electric Co., Silicone Products Dept., Waterford, N. Y.
 George Co., P. D., 5200 N. Second St., St. Louis, Mo.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Marlette Corp., 37-21 30th St., Long Island City 1, N. Y.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Midland Paint & Varnish Co., 9115 Reno Ave., Cleveland 5, Ohio.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

Lacquer

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
 American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Barrett Varnish Co., 1532 S. 50th Court, Cicero 50, Ill.
BORTHIG CO., INC., GEORGE C., P. O. Box 11A, East Rutherford, N. J. ADV. PG. 652.
 Chemical Products Corp., King Philip Rd., East Providence, R. I.
 Cudner & O'Connor Co., 4035 W. Kinzie Ave., Chicago 24, Ill.
 duPont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 George Co., P. D., 5200 N. Second St., St. Louis, Mo.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Marlette Corp., 37-21 30th St., Long Island City 1, N. Y.
 Midland Industrial Finishes Corp., Dept. I-20, Waukegan, Ill.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

Plastics

See PLASTIC MATERIALS

Protective Sealers

See COATINGS

Resins

See PLASTIC MATERIALS

Silicone Compounds

CONNECTICUT HARD RUBBER CO., 407 East St., New Haven 9, Conn. ADV. PG. 646.
 Dow Corning Corp., Midland, Mich.
 Ed-Berl Products, Inc., 87 Merrick Rd., Baldwin, N. Y.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 General Electric Co., Silicone Products Dept., Waterford, N. Y.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Midland Industrial Finishes Corp., Dept. I-20, Waukegan, Ill.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 National Engineering Products, Inc., 435 Washington Bldg., Washington 5, D. C.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

Waxes

Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
BIWAX CORP., 3445 Howard St., Skokie, Ill. ADV. PG. 337.
BORTHIG CO., INC., GEORGE C., P. O. Box 11A, East Rutherford, N. J. ADV. PG. 652.
 Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.
 Glyco Products Co., Inc., Empire State Bldg., New York 1, N. Y.
 Hi-Test Chemical Corp., 722 64th St., Brooklyn 20, N. Y.
 Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.
 Stevenson, Bro. & Co., 110 Race St., Philadelphia 6, Pa.
 Terrell Corp., 19 Lane St., Waltham 54, Mass.
 Wax Corporation of America, 21-29 Dunham Pl., Brooklyn 11, N. Y.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 614.

INSULATION MATERIALS

Aluminum Oxide

Aluminum Co. of America, Alcoa Bldg., Pittsburgh 15, Pa.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
ELECTRONIC MECHANICS, INC., 101 Clifton Bldg., Clifton, N. J. ADV. PG. 508.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
 Nopco Chemical Co., Plastics Div., Harrison, N. J.
 Norton Co., 1 New Bond St., Worcester 6, Mass.
 U. S. Stoneware Co., The, Akron 9, Ohio.
 Vitro Corp. of America, 261 Madison Ave., New York 17, N. Y.

Asbestos

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
ELECTRICAL INSULATION CO., INC., 1245 Mar Blvd., Copiague, N. Y. ADV. PG. 699.
ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 232.
 Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
 Synthane Corp., Oaks, Pa.
 Taylor Fibre Co., Norristown, Pa.

Ceramic

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Chattanooga 5, Tenn. ADV. PG. 279.
 Cook Ceramic Mfg. Co., 501 Prospect St., Trenton 1, N. J.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Electrical Refractories Co., 50 Clark St., East Palestine, Ohio.
ELECTRONIC MECHANICS, INC., 101 Clifton Bldg., Clifton, N. J. ADV. PG. 508.

erson & Cuming, Inc., 869 Washington St., Canton, Mass.
IE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 271.
MINERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
 Mastavino Co., R., 660 Main St., Woburn, Mass.
 Integrated Mica Corp., 202 Franklin Place, Woodmere, N. Y.
 Plantite Mfg. Corp., Stirling, N. J.
PARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
 Schberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
APP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., Le Roy, N. Y. ADV. PG. 276, 1277.
MANSOL CERAMICS CO., 140 Little St., Belleville, N. J. ADV. PG. 697.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mikroy, Inc., Wheeling, Ill.
 National Ceramic Co., 400 Southard St., Trenton 2, N. J.
 Norton Co., 1 New Bond St., Worcester 6, Mass.
 Rogers Corp., Goodyear, Conn.
 Edward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
UPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 588.
OR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
 S. Stoneware Co., Akron 9, Ohio.
 Vitro Corp. of America, 261 Madison Ave., New York 16, N. Y.

abric
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
 American Mica Insulation Co., Manasquan, N. J.
 Apex Coated Fabrics Co., 12 E. 22nd St., New York 10, N. Y.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
 Boston Felt Co., 210 South St., Boston 11, Mass.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
 Continental Felt Co., 22 W. 15th St., New York 12, N. Y.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 232.
 General Plastics Corp., P. O. Box 1236, Paterson, N. J.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Mica Insulator Co., Schenectady 1, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 568.
 Polymica & Insulation Co., 683 Main St., Willimantic, Conn.
 Hamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
 Synthane Corp., Oaks, Pa.
 Taylor Fibre Co., Norristown, Pa.
 Thompson Fiberglass Co., H. I., 1733 Cordova St., Los Angeles 7, Calif.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

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ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
 American Felt Co., Glenville, Conn.
 American Mica Insulation Co., Manasquan, N. J.
ONTINENTAL-DIAMOND FIBRE CORP., Newark 100, Delaware. ADV. PG. 345-348.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
 Elt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
NATIONAL TEL-TRONICS CORP., 35 St. Casimirs Ave., Yonkers, N. Y. ADV. PG. 642.
 National Vulcanized Fibre Co., Wilmington, Del.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 568.

Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 34, Pa.
RELANCE MICA CO., 341 39th St., Brooklyn, N. Y. ADV. PG. 695.
 Rogers Corp., Goodyear, Conn.
 Spaulding Fibre Co., Inc., 320 Wheeler St., Tonawanda, N. Y.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
 Taylor Fibre Co., Norristown, Pa.
 West Virginia Pulp & Paper Co., 230 Park Ave., New York 17, N. Y.
 Wilmington Fibre Specialty Co., New Castle, Del.

Films See FILMS

Glass
 Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 232.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
HAMILTON ELECTRONICS CORP., Box 100, Bath, N. Y. ADV. PG. 507.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Lancaster Glass Corp., Lancaster, Ohio.
MANSOL CERAMICS CO., 140 Little St., Belleville, N. J. ADV. PG. 697.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 568.
 Pittsburgh Plate Glass Co., 1 Gateway Center, Pittsburgh 22, Pa.
 Polymica & Insulation Co., 683 Main St., Willimantic, Conn.
 Taylor Fibre Co., Norristown, Pa.
 Vitro Corp. of America, 261 Madison Ave., New York 16, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

Glass Bonded Mica
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. ADV. PG. 508.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
MYCALEX CORPORATION OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 140, 141.
 Mikroy, Inc., Wheeling, Ill.
 National Electric Coil Co., Columbus 16, Ohio.
 Polymica & Insulation Co., 683 Main St., Willimantic, Conn.
RELANCE MICA CO., 341 39th St., Brooklyn, N. Y. ADV. PG. 695.

Glass Fibre
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
 American Mica Insulation Co., Manasquan, N. J.
BORDEN CO., RESINITE DEPT., Box 1589, Santa Barbara, Calif. ADV. PG. 604.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
 Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 232.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
LAMTEX INDUSTRIES, INC., 51 State St., Westbury, N. Y. ADV. PG. 596.
 L-O-F Glass Fibers Co., 1810 Madison Ave., Toledo 1, Ohio.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Molded Fiberglass Sheet Co., Ashtabula, Ohio.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Owens-Corning Fibreglas Corp., 598 Madison Ave., New York 22, N. Y.

Panelyte Div., St. Regis Paper Corp., 261 Madison Ave., New York 16, N. Y.
 Pittsburgh Plate Glass Co., 1 Gateway Center, Pittsburgh 22, Pa.
 Polymica & Insulation Co., 683 Main St., Willimantic, Conn.
 Robins Industries Corp., 214-26 41st Ave., Bayside, N. Y.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
 Synthane Corp., Oaks, Pa.
 Thompson Fiberglass Co., H. I., 1733 Cordova St., Los Angeles 7, Calif.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

Laminates See LAMINATES

Mica
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
 American Mica Insulation Co., Manasquan, N. J.
 Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
 Brush Beryllium Co., The, 4301 Perkins Ave., Cleveland 3, Ohio.
CONTINENTAL-DIAMOND FIBRE CORP., Newark 100, Delaware. ADV. PG. 345-348.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
 Ford Radio & Mica Corp., 538 63rd St., Brooklyn 20, N. Y.
 Industrial Mica Corp., 223 S. Van Brunt St., Englewood, N. J.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Integrated Mica Corp., 202 Franklin Place, Woodmere, N. Y.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
 Miccraft Products, Inc., 703 McCarter Highway, Newark 5, N. J.
 Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 140, 141.
NATIONAL TEL-TRONICS CORP., 35 St. Casimirs Ave., Yonkers, N. Y. ADV. PG. 642.
PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.
 Polymica & Insulation Co., 683 Main St., Willimantic, Conn.
RELANCE MICA CO., INC., 341 39th St., Brooklyn 32, N. Y. ADV. PG. 695.
 Spruce Pine Mica Co., Spruce Pine, N. C.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Nylon
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
 American Mica Insulation Co., Manasquan, N. J.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
 Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
 Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
 Buchanan Electrical Products Corp., 223 U. S. Route 22, Hillsdale, N. J.
 Catalin Corp. of America, 1 Park Ave., New York 16, N. Y.
 Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
NATIONAL TEL-TRONICS CORP., 35 St. Casimirs Ave., Yonkers, N. Y. ADV. PG. 642.
 National Vulcanized Fibre Co., Wilmington, Del.
 Panelyte Div., St. Regis Paper Corp., 261 Madison Ave., New York 16, N. Y.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.

Polymica & Insulation Co., 683 Main St., Willimantic, Conn.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
 Synthane Corp., Oaks, Pa.
 Taylor Fibre Co., Norristown, Pa.
 U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 WESTLAKE PLASTICS CO., 133 W. Lenhi Rd., Lenni, Pa. ADV. PG. 557.

Paper

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
 ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
 American Mica Insulation Co., Manasquan, N. J.
 Auburn Mfg. Co., The, Pease Ave & Stack St., Middletown, Conn.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 COTTRELL PAPER CO., INC., Fall River, Mass. ADV. PG. 619.
 ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
 ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 232.
 Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Hartford City Paper Co., S. Spring St., Hartford City, Ind.
 Hinde & Dauch, Sandusky, Ohio.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Mica Insulator Co., Schenectady 1, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 MOSINEE PAPER MILLS, INC., Dept. EB-7, Mosinee, Wis. ADV. PG. 81.
 NATIONAL TEL-TRONICS CORP., 35 St. Casimirs Ave., Yonkers N. Y. ADV. PG. 642.
 NATVAR CORP., Woodbridge, N. J. ADV. PG. 568.
 Panelyte Div., St. Regis Paper Co., 261 Madison Ave., New York 16, N. Y.
 Polymica & Insulation Co., 683 Main St., Willimantic, Conn.
 Rogers Corp., Goodyear, Conn.
 Schweitzer Inc., Peter J., 261 Madison Ave., New York 16, N. Y.
 Stevens Paper Mills, Inc., Windsor, Conn.
 Synthane Corp., Oaks, Pa.
 Taylor Fibre Co., Norristown, Pa.
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Wilmington Fibre Specialty Co., New Castle, Del.

Plastic

See PLASTIC MATERIALS

Porcelain

See INSULATION MATERIALS—Ceramic

Rubber

See RUBBER

Steatite

See INSULATION MATERIALS—Ceramic

Varnished Cambric

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
 ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
 Auburn Mfg. Co., The, Pease Ave & Stack St., Middletown, Conn.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
 ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 232.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
 NATVAR CORP., Woodbridge, N. J. ADV. PG. 568.
 New Jersey Wood Finishing Co., Amboy Ave., Woodbridge, N. J.
 Polymica & Insulation Co., 683 Main St., Willimantic, Conn.
 Vitro Corp. of America, 261 Madison Ave., New York 16, N. Y.
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

INSULATION PARTS

Bead Insulation Parts

AMERICAN FELDMUEHLE CORP., 11 W. 42nd St., New York 36, N. Y. ADV. PG. 457.
 AMERICAN LAVA CORP., Cherokee Blvd. & Mfgs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 Crane Packing Co., 6402 Oakton St., Morton Grove, Ill.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 HAMILTON ELECTRONICS CORP., Box 100, Bath, N. Y. ADV. PG. 507.
 Isolantite Mfg. Corp., Stirling, N. J.
 MANSOL CERAMICS CO 140 Little St., Belleville, N. J. ADV. PG. 697.
 Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Mykroy, Inc., Wheeling, Ill.
 National Ceramic Co., 400 Southard St., Trenton 2, N. J.
 NORRICH PLASTICS CORP., 35 E. 32nd St., New York, N. Y. ADV. PG. 244.
 Norton Co., 1 New Bond St., Worcester 6, Mass.
 Star Porcelain Co., The, 61 Muirhead Ave., Trenton 9, N. J.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
 SYNCOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 589.
 THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
 Transradio, Ltd., 138A Cromwell Rd., London, S.W. 7, England.

Capacitor Films

See FILMS—Capacitor

Ceramic Insulation Parts

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 AMERICAN FELDMUEHLE CORP., 11 W. 42nd St., New York 36, N. Y. ADV. PG. 457.
 AMERICAN LAVA CORP., Cherokee Blvd. & Mfgs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 BG Corp., The, 321 Broad Ave., Ridgefield, N. J.
 BIRNACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
 Ceramaseal, Inc., Box 25, New Lebanon Center, N. Y.
 Cook Ceramic Mfg. Co., 501 Prospect St., Trenton 1, N. J.
 Diamonite Products Mfg. Co., Div. of U. S. Ceramic Tile Co., 1232 Cleveland Ave., N.W., Canton, Ohio.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. ADV. PG. 508.
 ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
 GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
 Guastavino Co., R., 660 Main St., Woburn, Mass.
 Integrated Mica Corp., 202 Franklin Place, Woodmere, N. Y.
 Isolantite Mfg. Corp., Stirling, N. J.
 Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
 LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., Le Roy, N. Y. ADV. PG. 276, 277.
 Louthan Mfg. Co., East Liverpool, Ohio.
 MANSOL CERAMICS CO., 140 Little St., Belleville, N. J. ADV. PG. 697.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
 MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 140, 141.
 Mykroy, Inc., Wheeling, Ill.
 National Ceramic Co., 400 Southard St., Trenton 2, N. J.
 Porcelain Products, Inc., Findlay, Ohio.
 Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass.
 Star Porcelain Corp., 61 Muirhead Ave., Trenton 9, N. J.
 Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
 STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 108, 109.
 SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 588.
 SYNCOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 589.
 Thermo Materials, Inc., 4040 Campbell Ave., Menlo Park, Calif.
 THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 U. S. Stoneware Co., Akron 9, Ohio
 WESTERN GOLD & PLATINUM CO., 589 Bryant St., San Francisco, Calif. ADV. PG. 593.

Insulating Cord

See CORDS—Lacing

Insulating Sleeves

Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
 ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
 AMERICAN FELDMUEHLE CORP., 11 W. 42nd St., New York 36, N. Y. ADV. PG. 457.
 AMERICAN LAVA CORP., Cherokee Blvd. & Mfgs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Mount News, Va.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
 BENTLEY-HARRIS MFG. CO., Conshohocken 13, Pa. ADV. PG. 523.
 BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 BORDEN CO., RESINITE DEPT., Box 1589, Santa Barbara, Calif. ADV. PG. 604.
 BRAND & CO., INC., WILLIAM, 41 North St., Willimantic, Conn. ADV. PG. 199.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
 Buchanan Electrical Products Corp., 223 U. S. Route 1, Hillsdale, N. J.
 CLEVELAND CONTAINER CO., THE, 6201 Barber Ave., Cleveland 2, Ohio ADV. PG. 160.
 CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
 Crane Packing Co., 6402 Oakton St., Morton Grove, Ill.
 Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Franklin-Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 HAMILTON ELECTRONICS CORP., Box 100, Bath, N. Y. ADV. PG. 507.
 Haveg Industries, Inc., 900 Greenbank Rd., Wilmington 8, Del.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
 LAMTEX INDUSTRIES, INC., 51 State St., Westbury, N. Y. ADV. PG. 596.
 MARKEL & SONS, L. FRANK, School House, Norristown, Pa. ADV. PG. 204.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mitchell Rand Insulation Co., 51 Murray St., New York 7, N. Y.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
 Mykroy, Inc., Wheeling, Ill.
 NATIONAL TEL-TRONICS CORP., 35 St. Casimirs Ave., Yonkers, N. Y. ADV. PG. 642.
 NATVAR CORP., Woodbridge, N. J. ADV. PG. 568.
 NORRICH PLASTICS CORP., 35 E. 32nd St., New York, N. Y. ADV. PG. 244.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland Philadelphia 34, Pa.
 Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass.
 RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249.
 Resin Industries, P. O. Box 1589, Santa Barbara, Calif.
 RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 6.
 REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
 Silicone Insulation Co., 1385 Seabury Ave., Bronx, N. Y.
 Sinclair Mfg. Co., Chartley, Mass.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 SYNCOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 589.
 THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
 U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 Wade Electric Products Co., 400 Jacob St., Sturbridge, Mich.

Plastic Insulation Parts

1. Extruded
2. Fabricated
3. Laminated
4. Molded

Accurate Electronics Corp., 169 Abbe Rd., S., Ely, Ohio. 2-3-4.
 Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y. 1-2.
 Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y. 2-3.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J. 2-4.
 AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. 2-4. ADV. PG. 615.
 ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. 4. ADV. PG. 567.
 ALLIED ALLEGRI, INC., 141 River Rd., Nutley, N. J. ADV. PG. 650.
 Allied Industries, Inc., 25th & Woodland Ave., Louisville 10, Ky. 2.
 ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. 1-2-3-4. ADV. PG. 247.
 American Mica Insulation Co., Manasquan, N. J. 1-2-3-4.

AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. 4 ADV. PG. 580.

ANCHOR INDUSTRIAL CO., DIV. OF ANCHOR PLASTICS CO., INC., 36-36 36th St., Long Island City 6, N. Y. 1. ADV. PG. 613.

Armstrong Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y. 4.

Auburn Button Works, Inc., Auburn, N. Y. 1-4.

Auburn Mfg. Co., The Pease Ave. & Stack St., Middletown, Conn. 2-3.

Baer Co., N. S., 9 Montgomery St., Hillside, N. J. 2.

Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass. 3.

Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn. 3.

BENTLEY-HARRIS MFG. CO., Conshohocken 13, Pa. 1. ADV. PG. 523.

Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif. 2-3-4.

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. 1. ADV. PG. 501.

BIWAX CORP., 3445 Howard St., Skokie, Ill. 4. ADV. PG. 337.

Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass. 1-2-3-4.

Bomyle Co., The Green St., Silverdale, Pa. 2-3.

Bounton Molding Co., Bounton, N. J. 1-2-4.

BORDEN CO., RESINITE DEPT., Box 1589, Santa Barbara, Calif. 1. ADV. PG. 604.

BRAND & CO., INC., WILLIAM, 41 North St., Wilimantic, Conn. 1. ADV. PG. 199.

Buchanan Electrical Products Corp., 223 U. S. Route 22, Hillside, N. J. 4.

Calresin Corp., 4543 Brazil St., Los Angeles 39, Calif. 2-3-4.

CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. 2. ADV. PG. 150.

CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. 3-4. ADV. PG. 638.

Connector Corp. of America, 3223 Burton Ave., Burbank, Calif. 2.

Consolidated Molded Products Corp., Scranton 2, Pa. 4.

Continental Can Co., 100 E. 42nd St., New York 17, N. Y. 3.

CONTINENTAL-DIAMOND FIBRE CORP., Newark 100, Delaware 2-3-4. ADV. PG. 345-348.

Cook Ceramic Mfg. Co., 501 Prospect St., Trenton 1, N. J. 4.

Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill. 2.

Crane Packing Co., 6402 Oakton St., Morton Grove, Ill. 1-2-4.

CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. 1-2-3-4. ADV. PG. 557.

Decatur Electronics Industries Corp., 203 Orinco Drive, Brightwater, N. Y. 4.

Electric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill. 1.

DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. 4. ADV. PG. 638.

Dixon Corporation, Bristol, R. I. 1-2-4.

DPM Corp., 570 Van Sicken Ave., Brooklyn, N. Y. 2-4.

Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif. 4.

ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copague, N. Y. 2-3. ADV. PG. 699.

ELECTRONIC PLASTICS CORP., 675 Barbey St., Brooklyn 7, N. Y. 2-4. ADV. PG. 663.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y. 1.

Emerson & Cuming, Inc., 869 Washington St., Canton, Mass. 2-3-4.

Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y. 1-2-3-4.

Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J. 1-2-3-4.

ERIE RESISTOR CORP., Erie 6, Pa. 4. ADV. PG. 170, 171.

Ethylene Chemical Corp., 245 Broad St., Summit, N. J. 1-4.

Farley & Loetscher Mfg. Co., Plastics Div., Dubuque, Iowa. 3.

Fenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill. 2-4.

Fisher & Crome, 107 N. Camac St., Philadelphia 7, Pa. 2.

Flexrock Co., 3608 Filbert St., Philadelphia 1, Pa. 1-2-3-4.

Ford Radio & Mica Corp., 538 63rd St., Brooklyn 20, N. Y. 2.

Formica Co., The, 4587 Spring Grove Ave., Cincinnati 32, Ohio. 2-3-4.

Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington 12, Del. 2-3.

Frederick Mfg. Co., 588 Eddy St., Providence 3, R. I. 2-3-4.

Frederick Packing Co., The, Palmyra, N. Y. 1-2-3-4.

GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. 2-3-4. ADV. PG. 696.

General Electric Co., Plastics Dept., 132 S. Water St., Decatur, Ill. 4.

Graphic Corp., The, 4321 Glenridge Rd., Cleveland 21, Ohio. 1-2-3-4.

Graphic-Circuits Div. of Cinch Mfg. Corp., 200 S. Turnbull Canyon Rd., La Puente, Calif. 2.

HIES REPRODUCOR CORP., 151 Beechwood St., New Rochelle, N. Y. 4. ADV. PG. 573.

Hive Industries, Inc., 900 Greenbank Rd., Wilmington 8, Del. 2-3-4.

Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y. 2-4.

Ilumitronic Engineering, 680 E. Taylor, Sunnyvale, Calif. 2-3.

Industrial Engravers, Inc., 2212 McDonald Ave., Brooklyn 23, N. Y. 2.

INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 693.

Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 9, Ill. 2.

Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J. 2.

Irrington Varnish & Insulator Div., of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J. 1.

Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y. 1-2-3-4.

Johnson Co., E. F. Waseca, Minn.

KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. 2. ADV. PG. 675.

KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mt. Vernon, N. Y. 3-4. ADV. PG. 685.

Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass. 1-2-3.

LAMTEX INDUSTRIES, INC., 51 State St., Westbury, N. Y. 2-3. ADV. PG. 596.

LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 664.

Luzerne Rubber Co., Murhead Ave., Trenton, N. J. 1-2-4.

MAIGNE CO. O. J., 321 Pearl St., New York 38, N. Y. 2-4. ADV. PG. 679.

Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill. 2-3-4.

MARKEL & SONS, L. FRANK, School House, Norristown, Pa. 1. ADV. PG. 204.

Maryland Lava Co., Ceramic Dept. Bel Air, Md. 2.

Metaplast Corp., Davisville Rd., at Pa. Turnpike, Hatboro, Pa. 3.

METHODE MFG. CORP., 2021 W. Churchill St., Chicago 47, Ill. 2-3-4. ADV. PG. 204.

Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J. 1-2-3-4.

Mica Insulator Co., Schenectady 1, N. Y. 1-2-3-4.

Micarta Fabricators, Inc., 54 N. Clark St., Chicago 40, Ill. 2-3.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass. 4.

Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y. 1-2-3-4.

Molded Fiberglass Co., 4401 Benefit Ave., Ashtabula, Ohio. 4.

Molded Fiberglass Sheet Co., Ashtabula, Ohio. 4.

Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa. 2-3-4.

Molded Products Div., of Admiral Corp., P. O. Box 338, West Chicago, Ill. 4.

Molding Corp. of America, 40 Church St., Pawtucket, R. I. 4.

Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y. 2-3-4.

Mykroy, Inc., Wheeling, Ill. 2-4.

NATIONAL TEL-TRONICS CORP., 35 St. Casimirs Ave., Yonker, N. Y. 3. ADV. PG. 642.

National Vulcanized Fibre Co., Wilmington, Del. 2-3.

NATVAR CORP., Woodbridge, N. J. 1-2. ADV. PG. 568.

NEW ENGLAND LAMINATES CO., P. O. Box 43, 481 Canal St., Stamford, Conn. 3. ADV. PG. 648.

New England Tape Co., Hudson, Mass. 1-2.

NORRICH PLASTICS CORP., 35 E. 32nd St., New York, N. Y. 2. ADV. PG. 244.

Northern Plastics Corp., Second & Market Sts., La Crosse, Wis. 2-3.

Nugent Electronics Co., New Albany, Ind. 2.

Olympic Plastics Co., Inc., 3471 S. La Cienega Blvd., Los Angeles 16, Calif. 3-4.

Osborne Electric Co., 712 S.E. Hawthorne, Portland 14, Ore. 4.

Panelty Div., St. Regis Paper Co., 261 Madison Ave., New York 16, N. Y. 2-3-4.

Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill. 2-3.

Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill. 2.

Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 34, Pa. 2-3.

Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill. 2-3-4.

Pfeger Products, 3901 W. 54th St., Los Angeles 43, Calif. 2.

Plastronics, P. O. Box 96, Winter Hill 45, Mass. 4.

POLYMER CORPORATION, THE, Reading, Pa. 1-2. ADV. PG. 502.

Printold, Inc., 93 Mercer St., New York 12, N. Y. 2.

REF Mfg. Corp., Jericho Turnpike, Mineola, N. Y. 2-3-4.

Ray-O-Vac Co., 212 E. Washington Ave., Madison, Wis.

Remler Company, 2101 Bryant St., San Francisco 10, Calif. 2-4.

Resin Industries, P. O. Box 1589, Santa Barbara, Calif. 1.

RESISTOFLEX CORP., Roseland, N. J. 1-2-4. ADV. PG. 694.

REX CORP., THE, Hayward Rd., West Acton, Mass. 1-2. ADV. PG. 551.

RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. 2-3-4. ADV. PG. 530.

ROGAN BROS., 8031 N. Monticello Ave., Skokie, Ill. 4. ADV. PG. 222.

Rogers Corp., Goodyear, Conn. 4.

Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill. 4.

ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. 1-2-3-4. ADV. PG. 643.

SEAELECTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. 2. ADV. PG. 484.

Shaw Insulator Co., 160 Coit St., Irvington 11, N. J. 4.

Sheffo Mfg. Corp., Grand & Ruby Aves., Palisades Park, N. J. 2-3.

Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif. 2-4.

Silicone Insulation Co., 1385 Seabury Ave., Bronx 61, N. Y. 2-3-4.

Sillcocks-Miller Co., Maplewood, N. J. 2-3.

Sinclair Mfg. Co., Chartley, Mass. 2.

Sparta Mfg. Co., Div. of U. S. Ceramic Tile Co., Dover, Ohio. 1-2-4.

Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y. 2-3.

Standard Plastics Co., Inc., 62 Water St., Attleboro, Mass. 4.

Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y. 2-3.

Stevens Products Inc., 86-88 Main St., East Orange, N. J. 2-3.

Stone Paper Tube Co., Inc., 900 Franklin St., N.E., Washington 17, D. C. 3.

Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif. 2-3-4.

SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. 4. ADV. PG. 733-739.

Synthane Corp., Oaks, Pa. 2-3.

Taylor Fibre Co., Norristown, Pa. 2-3.

THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. 2. ADV. PG. 603.

Transradio Ltd., 138A Cromwell Rd., London, S.W. 7, England. 1-4.

Tri-Dex Co., P. O. Box 1207, Lindsay, Calif. 2.

Tri-Point Plastics, Inc., 177 I.U. Willets Rd., Albertson, N. Y. 1.

U. S. GASKET CO., Camden, N. J. 1-2-3-4. ADV. PG. 418, 635.

Varflex Corp., 506 W. Court St., Rome, N. Y. 1.

Viking Industries, Inc., 21343 Roscoe Blvd., Canoga Park, Calif. 4.

Wade Electric Products Co., 400 Jacob St., Sturgis, Mich. 4.

Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y. 1-2-4.

Warren Plastics Corp., Warren, Pa. 2-4.

Waterbury Companies, Inc., Waterbury 20, Conn.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. 1-2-3-4. ADV. PG. 205-216.

WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni, Pa. 1-2-3-4. ADV. PG. 557.

Whitaker Cable Corp., Kansas City 16, Mo. 1-2-4.

Wilmington Fibre Specialty Co., New Castle, Del. 3.

Rods

Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.

AMERICAN FELDMUEHLE CORP., 11 W. 42nd St., New York 36, N. Y. ADV. PG. 457.

AMERICAN LAVA CORP., Cherokee Blvd. & Mfgs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.

American Mica Insulation Co., Manassquan, N. J.

ANCHOR INDUSTRIAL CO., DIV. OF ANCHOR PLASTICS CO., INC., 36-36 36th St., Long Island City 6, N. Y. ADV. PG. 613.

Auburn Button Works, Inc., Auburn, N. Y.

Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.

Baer Co., N. S., 9 Montgomery St., Hillside, N. J.

Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.

Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.

BORDEN CO., RESINITE DEPT., Box 1589, Santa Barbara, Calif. ADV. PG. 604.

Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.

Crane Packing Co., 6402 Oakton St., Morton Grove, Ill.

CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.

Dixon Corporation, Bristol, R. I.

Du-Co Ceramics Co., Box 587, Butler 8, Pa.

ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copague, N. Y. ADV. PG. 699.

ELECTRONIC PLASTICS CORP., 675 Barbey St., Brooklyn 7, N. Y. ADV. PG. 663.

Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.

Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.

Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.

Ethylene Chemical Corp., 245 Broad St., Summit, N. J.

Flexrock Co., 3608 Filbert St., Philadelphia 1, Pa.

Franklin Fibre-Lamitex Corp., 411 E. Frost St., Wilmington, Del.

GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.

GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.

General Electric Co., Laminated Products Dept., Coshoc-ton, Ohio.

HAMILTON ELECTRONICS CORP., Box 100, Bath, N. Y. ADV. PG. 507.

Havag Industries, Inc., 900 Greenbank Rd., Wilmington 8, Del.

Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
 Illumitronic Engineering, 680 E. Taylor, Sunnyvale, Calif.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Isolantite Mfg. Corp., Stirling, N. J.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., Le Roy, N. Y. ADV. PG. 276, 277.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Mykroy, Inc., Wheeling, Ill.
 National Vulcanized Fibre Co., Wilmington, Del.
 Panelyte Div., St. Regis Paper Corp., 261 Madison Ave., New York 16, N. Y.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 34, Pa.
 Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
 Printloid, Inc., 93 Mercer St., New York 12, N. Y.
 Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249.
 Resin Industries, P. O. Box 1589, Santa Barbara, Calif.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 694.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 530.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
 Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
 Sheffco Mfg. Corp., Grand & Ruby Aves., Palisades Park, N. J.
 Silicone Insulation Co., 1385 Seabury Ave., Bronx 61, N. Y.
 Sparta Mfg. Co., Div. of U. S. Ceramic Tile Co., Dover, Ohio.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
SYNCRON PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 589.
 Synthane Corp., Oaks, Pa.
 Taylor Fibre Co., Norristown, Pa.
 Thermo Materials, Inc., 4040 Campbell Ave., Menlo Park, Calif.
 Trent Tube Co., East Troy, N. Y.
 Tri-Point Plastics, Inc., 177 I. U. Willets Rd., Albertson, N. Y.
 Walter Dee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.
 Wilmington Fibre Specialty Co., New Castle, Del.

Sheets

Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
 American Mica Insulation Co., Manasquan, N. J.
 Auburn Button Works, Inc., Auburn, N. Y.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
 Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
BENTLEY-HARRIS MFG. CO., Conshohocken 13, Pa. ADV. PG. 523.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
BORDEN CO., RESINITE DEPT., Box 1589, Santa Barbara, Calif. ADV. PG. 604.
 Continental Can Co., 100 E. 42nd St., New York 17, N. Y.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Crane Packing Co., 6402 Oakton St., Morton Grove, Ill.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
 Dixon Corporation, Bristol, R. I.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Ethylene Chemical Corp., 245 Broad St., Summit, N. J.
 Farley & Loetscher Mfg. Co., Plastics Div., Dubuque, Iowa.
 Flexrock Co., 3608 Filbert St., Philadelphia 1, Pa.
 Franklin Fibre-Lamitex Corp., 411 E. Frost St., Wilmington, Del.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
 General Electric Co., Laminated Products Dept., Coshoc-ton, Ohio.

Glastic Corp., The, 4321 Glenridge Rd., Cleveland 21, Ohio.
 Have Industries, Inc., 900 Greenbank Rd., Wilmington 8, Del.
 Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
 Illumitronic Engineering, 680 E. Taylor, Sunnyvale, Calif.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
MAIGNE CO., O. J., 321 Pearl St., New York 38, N. Y. ADV. PG. 679.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Molded Fiberglass Sheet Co., Ashtabula, Ohio.
 Mykroy, Inc., Wheeling, Ill.
 National Vulcanized Fibre Co., Wilmington, Del.
NEW ENGLAND LAMINATES CO., INC., P. O. Box 43, 481 Canal St., Stamford, Conn. ADV. PG. 648.
 Northern Plastics Corp., Second & Market Sts., LaCrosse, Wis.
 Panelyte Div., St. Regis Paper Corp., 261 Madison Ave., New York 16, N. Y.
 Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 34, Pa.
 Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
 Printloid, Inc., 93 Mercer St., New York 12, N. Y.
 Resin Industries, P. O. Box 1589, Santa Barbara, Calif.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 694.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
RICHARDSON CO., THE, 2767, Lake St., Melrose Park, Ill. ADV. PG. 530.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
 Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
 Sheffco Mfg. Co., Grand & Ruby Aves., Palisades Park, N. J.
 Silicone Insulation Co., 1385 Seabury Ave., Bronx 61, N. Y.
 Sparta Mfg. Co., Div. of U. S. Ceramic Tile Co., Dover, Ohio.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
 Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
SYNCRON PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 589.
 Synthane Corp., Oaks, Pa.
 Taylor Fibre Co., Norristown, Pa.
 Thermo Materials, Inc., 4040 Campbell Ave., Menlo Park, Calif.
 Trent Tube Co., East Troy, N. Y.
 Tri-Point Plastics, Inc., 177 I. U. Willets Rd., Albertson, N. Y.
 Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.
 West Virginia Pulp & Paper Co., 230 Park Ave., New York 17, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.
 Wilmington Fibre Specialty Co., New Castle, Del.

Silicone Rubber Insulation Parts

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
 American Mica Insulation Co., Manasquan, N. J.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
BACON INDUSTRIES, INC., 192 Pleasant St., Watertown, Mass. ADV. PG. 619.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic, Conn. ADV. PG. 199.
CONNECTICUT HARD RUBBER CO., 407 East St., New Haven 9, Conn. ADV. PG. 646.
 Decatur Electronics Industries Corp., 203 Ornic Drive, Brightwater, N. Y.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
 Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
 Garlock Packing Co., The, Palmyra, N. Y.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
 General Electric Co., Plastics Dept., 132 S. Water St., Decatur, Ill.
 Goodrich Industrial Products Co., B. F., 500 S. Main St., Akron 18, Ohio.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
 Mica Insulator Co., Schenectady 1, N. Y.
 Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
 Rogers Corp., Goodyear, Conn.
 Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill.

Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
 Varflex Corp., 506 W. Court St., Rome, N. Y.
 Western Felt Works, 4029 Ogden Ave., Chicago, Ill.

Stampings & Punchings—Ceramic

Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 Diamondite Products Mfg. Co., Div. of U. S. Ceramic Tile Co., 1232 Cleveland Ave., N. W., Canton, Ohio.
Du-Co Ceramic Co., Box 587, Butler 8, Pa.
 Electrical Refractories Co., 50 Clark St., East Palestine, Ohio.
GENERAL CERAMICS CORP., Keasby, N. J. ADV. PG. 28.
 Guastavino Co., R., 660 Main St., Woburn, Mass.
 Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
 Louthan Mfg. Co., East Liverpool, Ohio.
MANSOL CERAMICS CO., 140 Little St., Belleville, N. J. ADV. PG. 697.
 Mica Fabricating Co., 53 Central Ave., New Rochelle, N. Y.
 Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
 Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
 Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
SUPERIOR STEATITE & CERAMIC CORP., 83-91 Forest Ave., Englewood, N. J. ADV. PG. 588.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.

Stampings & Punchings—Mica

American Mica Insulation Co., Manasquan, N. J.
 Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
CONTINENTAL-DIAMOND FIBRE CORP., Newark 10, Delaware. ADV. PG. 345-348.
 Ford Radio & Mica Corp., 538 63rd St., Brooklyn 11, N. Y.
 Industrial Mica Corp., 223 S. Van Brunt St., Englewood, N. J.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
 Micrafast Products, Inc., 703 McCarter Highway, Newark 5, N. J.
NATIONAL TEL-TRONICS CORP., 35 St. Casimir's Ave., Yonkers, N. Y. ADV. PG. 642.
PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.
 Pfeiffer Products, 3901 W. 54th St., Los Angeles 40, Calif.
 Polymica & Insulation Co., 683 Main St., Willimantic, Conn.
RELIANCE MICA CO., INC., 341 39th St., Brooklyn 11, N. Y. ADV. PG. 695.
 Spruce Pine Mica Co., Spruce Pine, N. C.
 Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 Wrought Washer Mfg. Co., 2264 S. Bay St., Milwaukee 7, Wis.

Stampings & Punchings—Paper

Accurate Electronics Corp., 169 Abbe Rd., S., Ely, Ohio.
 American Mica Insulation Co., Manasquan, N. J.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
 Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
 Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
 Graphik-Circuits Div. of Clinch Mfg. Corp., 200 S. T. bull Canyon Rd., La Puente, Calif.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
 Panelyte Div., St. Regis Paper Corp., 261 Madison Ave., New York 16, N. Y.
 Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.

monite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
 ver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
 ylor Fibre Co., Norristown, Pa.
 ight Washer Mfg. Co., 2264 S. Bay St., Milwaukee 7, Wis.

Campings & Punchings—Plastic or Laminates

See INSULATION PARTS

Plastic Insulation Parts—Fabricated

INSULATORS—Antenna Insulators & Spring Assemblies

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 ramaseal Inc., Box 25, New Lebanon Center, N. Y.
 u-Co Ceramics Co., Box 587, Butler 8, Pa.
 nfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 arde Mfg. Co., 588 Eddy St., Providence 3, R. I.
 ENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
 E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
 olantite Mfg. Corp., Stirling, N. J.
 nco Corp., 3111 Winona Ave., Burbank, Calif.
 APP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 276, 277.
 ORRICH PLASTICS CORP., 35 E. 32nd St., New York, N. Y. ADV. PG. 244.
 yemax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.
 HOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
 S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 ind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

INSULATORS—Can Liner

uburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
 iggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 nfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 urray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
 anylette Div., St. Regis Paper Co., 261 Madison Ave., New York 16, N. Y.
 ogers Corp., Goodyear, Conn.
 auldwing Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 est Virginia Pulp & Paper Co., 230 Park Ave., New York 17, N. Y.

INSULATORS—Ceramic

erovox Corp., 740 Belleville Ave., New Bedford, Mass.
 AMERICAN FELDMUEHLE CORP., 11 W. 42nd St., New York 36, N. Y. ADV. PG. 457.
 AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 G Corp., The, 321 Broad Ave., Ridgefield, N. J.
 BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 ristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 AMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
 CENTRALAB DIV., GLOBE-UNION, INC., 914 Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
 ramaseal, Inc., Box 25, New Lebanon Center, N. Y.
 u-Co Ceramic Mfg. Co., 501 Prospect St., Trenton 1, N. J.
 ors Porcelain Co., 600 Ninth St., Golden, Colo.
 amonite Products Mfg. Co., Div. of U. S. Ceramic Tile Co., 1232 Cleveland Ave., N. W., Canton, Ohio.
 u-Co Ceramics Co., Box 587, Butler 8, Pa.
 ectrical Refractories Co., 50 Clark St., East Palestine, Ohio.
 ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. ADV. PG. 508.
 entchtown Porcelain Co., Trenton 9, N. J.
 ENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
 ustavino Co., R., 660 Main St., Woburn, Mass.
 ntegrated Mica Corp., 202 Franklin Place, Woodmere, N. Y.
 olantite Mfg. Corp., Stirling, N. J.
 nson Co., E. F., Waseca, Minn.
 rchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
 APP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 276, 277.
 uthan Mfg. Co., East Liverpool, Ohio.
 ANSOL CERAMICS CO., 140 Little St., Belleville, N. J. ADV. PG. 697.
 ica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 llen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 NITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
 ykroy, Inc., Wheeling, Ill.
 onational Ceramic Co., 400 Southard St., Trenton 2, N. J.
 orton Co., 1 New Bond St., Worcester 6, Mass.

Porcelain Products, Inc., Findlay, Ohio.
 Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass.
 RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249.
 Star Porcelain Co., 61 Muirhead Ave., Trenton 9, N. J.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
 STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 108, 109.
 SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 588.
 SYNCOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 589.
 THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
 U. S. Stoneware Co., Akron 9, Ohio.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

INSULATORS—Feeder Spreader

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
 Isolantite Mfg. Co., Stirling, N. J.
 Johnson Co., E. F., Waseca, Minn.
 LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 276, 277.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
 THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

INSULATORS—Fused Quartz

Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 SYNCOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 589.

INSULATORS—High Dielectric Paper

Accurate Electronics Corp., 169 Abbe Rd.; S., Elyria, Ohio.
 Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
 Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
 Brand Dielectrics, Inc., 57 North St., Williamantic, Conn.
 CLEVELAND CONTAINER CO., THE, 6201 Barberton Ave., Cleveland 2, Ohio. ADV. PG. 160.
 Cook Ceramic Mfg. Co., 501 Prospect St., Trenton 1, N. J.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
 Glastic Corp., The, 4321 Glenridge Rd., Cleveland 21, Ohio.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Integrated Mica Corp., 202 Franklin Place, Woodmere, N. Y.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
 LAMTEX INDUSTRIES, INC., 51 State St., Westbury, N. Y. ADV. PG. 596.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Silicone Insulation, Inc., 1385 Seabury Ave., Bronx 61, N. Y.
 Stone Paper Tube Co., Inc., 900 Franklin St., N. E., Washington 17, D. C.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
 Taylor Fibre Co., Norristown, Pa.
 Varflex Corp., 506 W. Court St., Rome, N. Y.

INSULATORS—Strain

AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Decatur Electronics Industries Corp., 203 Ormco Drive, Brightwater, N. Y.
 GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
 Isolantite Mfg. Corp., Stirling, N. J.
 Johnson Co., E. F., Waseca, Minn.
 LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 276, 277.
 Mykroy, Inc., Wheeling, Ill.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Porcelain Products, Inc., Findlay, Ohio.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.

THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

INSULATORS—Test Clip

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Eastern Specialty Co., Philadelphia 40, Pa.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Exacto Industries, Inc., 8730-36 Santa Monica Blvd., Los Angeles 46, Calif.
 Mueller Electric Co., 1582H E. 31st St., Cleveland 14, Ohio.

INSULATORS—Thermocouple

AMERICAN FELDMUEHLE CORP., 11 W. 42nd St., New York 36, N. Y. ADV. PG. 457.
 AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Ceramaseal, Inc., Box 25, New Lebanon Center, N. Y.
 Du-Co, The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Isolantite Mfg. Corp., Stirling, N. J.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Norton Co., 1 New Bond St., Worcester 6, Mass.
 Richards Co., Inc., Arklay S., 38 Winchester St., Newton Highlands 61, Mass.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
 STUPAKOFF, DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 108, 109.
 THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.

INSULATORS—Tower

AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 CENTRALAB DIV., GLOBE-UNION, INC., 914 Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
 GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
 Isolantite Mfg. Corp., Stirling, N. J.
 LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 276, 277.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

INSULATORS—Transmitting Antenna

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 CENTRALAB DIV., GLOBE-UNION, INC., 914 E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
 Ceramaseal, Inc., Box 25, New Lebanon Center, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
 Isolantite Mfg. Corp., Stirling, N. J.
 Johnson Co., E. F., Waseca, Minn.
 LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 276, 277.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
 UNIWAY, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

INSULATORS—TV Yoke

AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 580.
 Plasti-Chem Corp., 5725 S. Dixie Highway, Miami 43, Fla.

INTEGRATORS—Electronic

Allegany Instrument Co. Inc., 1091 Wills Mountain, Cumberland, Md.
 ANDERSEN LABORATORIES, INC., 39 Talcott Rd., West Hartford 10, Conn. ADV. PG. 486.
 Antlab, 4950 N. High St., Columbus 14, Ohio.
 ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 DETROIT CONTROLS CORP., CONTROL ENGINEERING UNIT, 560, Providence Highway, Norwood, Mass. ADV. PG. 515.
 Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
 Hellipot Corp., Newport Beach, Calif.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
Inco Co., Div. of Barry Controls, Inc., Hollis St., Groton, Mass.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Nelson Instrument Co., 607 Howard St., Evanston, Ill.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
Reflectone Corp., Post Rd. & Myano Lane, Stamford, Conn.
Servonics, Inc., 822 N. Henry St., Alexandria, Va.
Servo-Tek Products Co., Inc., 1086 Goffe Rd., Hawthorne, N. J.
Unitronics, Inc., 472 Paul Ave., Ferguson Station, St. Louis 21, Mo.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.

INTERCOMMUNICATION SYSTEMS

Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
Bliss Electronic Corp., Box 366, Sussex, N. J.
COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Dalmotron Co., 534 Laurel St., San Carlos, Calif.
Dukane Corp., St. Charles, Ill.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Executone Inc., 415 Lexington Ave., New York 17, N. Y.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Feiler Engineering & Mfg Co., 8026 N. Monticello Ave., Skokie, Ill.
Flush Wall Radio Co., 1012 Cleveland St., Clearwater, Fla.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
Godfrey Manufacturing Co., 1726 N. Orchard St., Chicago 14, Ill.
Hallamere Electronics Co., 8352 Brookhurst Ave., Anaheim, Calif.
Lake Mfg. Co., 2323 Chestnut St., Oakland 7, Calif.
Loge Sound Engineers, J. M., 2171 W. Washington Blvd., Los Angeles 18, Calif.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill.
Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
North Electric Co., 553 S. Market St., Gallon, Ohio.
O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
Radio Merchandise Sales, Inc., 2016 Bronxdale Ave., New York 62, N. Y.
Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.
Remler Company, 2101 Bryant St., San Francisco 10, Calif.
Republic Electronic Industries Corp., 31 W. 27th St., New York 1, N. Y.
Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash.
Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Talk-A-Phone Mfg. Co., 1512 S. Pulaski Rd., Chicago 23, Ill.
TeleAutograph Corp., 8700 Bellanca Ave., Los Angeles 45, Calif.
TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. ADV. PG. 661.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas, Texas. ADV. PG. 280, 281.
Webster Electric Co., 1900 Clark St., Racine, Wis.
Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.
Worner Electronic Devices, Rankin, Ill.

INTERCOMMUNICATIONS SYSTEMS—Sound

Powered
COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
Dilks Co., The, Seymour, Conn.
Standard Telephones & Cables, Lt., Connaught House, 63 Aldwych, London, W.C. 2, England.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
Wheeler Insulated Wire Co., Inc., The, Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

INTERVALOMETERS

See **TIMERS—Automatic Cycle**

INVENTORYING SYSTEMS

BRIGGS ASSOCIATES, INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
Industrial Electronic Engineers, 3973 Lankershim Blvd., North Hollywood, Calif.
International Business Machines, 590 Madison Ave., New York 22, N. Y.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.

INVERTERS—(DC-AC)

Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
Aerolab Development Co., 330 W. Holly St., Pasadena, Calif.
Airborne, Inc., 4868 N. Clark, Chicago 40, Ill.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300.
AMERICAN TELEVISION & RADIO CO., 300 E. Fourth St., St. Paul 1, Minn. ADV. PG. 222.
Arnoux Corp., Box 34628, Los Angeles, Calif.
BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 159.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Bruel & Kjaer, Naerum, Denmark.
Brunswick Instruments, P. O. Box 813, New Brunswick, N. J.
Carter Motor Co., 2746 W. George St., Chicago 18, Ill.
CONTINENTAL ELECTRIC CO., INC., 334 Ferry St., Newark 5, N. J. ADV. PG. 557.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
Elcor, Inc., 4235 W. North Ave., Chicago 39, Ill.
Electro Engineering Products Co., 609 W. Lake St., Chicago, Ill.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Gyro Electronics Co., 325 Canal St., New York, N. Y.
INDUCTION MOTORS CORP., 570 Main St., Westbury, N. Y. ADV. PG. 266.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
Jack & Heintz, Inc., Cleveland 1, Ohio.
JAMES VIBRAPOWR CO., 4050 N. Rockwell St., Chicago 18, Ill. ADV. PG. 542.
Lawn Electronics Co., East Freehold Rd., Freehold, N. J.
Les, Via Bergamo 21, Milan, Italy.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.
MERCURY ELECTRONICS CO., Box 450, Red Bank, N. J. ADV. PG. 61.
Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
Modern Industries, Inc., 2601 Colorado Ave., Santa Monica, Calif.
Motordyne Inc., 2661 S. Myrtle Ave., Monrovia, Calif.
National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
PERKIN ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. ADV. PG. 67.
PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.
Rangertone, Inc., 73 Winthrop St., Newark 4, N. J.
RED BANK DIVISION, BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 332.
Redmond Co., Inc., Owosso, Mich.
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
Small Motors, Inc., 2076 Elston Ave., Chicago 14, Ill.
SOERSEN & CO., INC., Richards Ave., Norwalk, Conn. ADV. PG. 151-154.
TKM Electric Corp., 1160 University Ave., Rochester 7, N. Y.

TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. ADV. PG. 661.
Terado Co., 1059 Raymond Ave., St. Paul 14, Minn.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
Transistor Devices, Inc., 730 Boulevard, Kenilworth, N. J.
UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRANSISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. ADV. PG. 548.
VARO MFG. CO., INC., 2201 Walnut St., Garfield, Texas. ADV. PG. 564.
VIBRATION RESEARCH LABS., INC., 97 Lake Tuckahoe, N. Y. ADV. PG. 621.
Wincharger Corp., E. 7th & Division Sts., Sioux Falls, Iowa.

ION TRAPS

Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
Heppner Mfg. Co., P. O. Box 612, Round Lake, Ill.
Perfection Electric Co., 2635 S. Wabash Ave., Chicago 16, Ill.
Quam-Nichols Co., Marquette Rd. & Prairie Ave., Chicago 37, Ill.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.

IRON OXIDES for Ferrites

BAKER & ADAMSON PRODUCTS, GENERAL CHEMICAL DIV. OF ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. ADV. PG. 3.
COLUMBIAN CARBON CO., MAPICO COLOR UNIT, Madison Ave., New York 17, N. Y. ADV. PG. 6.
Foote Mineral Co., 18 W. Cheltenham, Philadelphia 44, Pa.
NATIONAL MOLDATE CO., 1410 Chestnut Ave., Haddonfield 5, N. J. ADV. PG. 100.
Tensor Electric Development Co., Centroid Div., 1 Eastern Parkway, Brooklyn 33, N. Y.
WILLIAMS & CO., C. K., 640 N. 13th St., Easton, Pa. ADV. PG. 318.

IRONS—Soldering

American Electrical Heater Co., 6110 Cass Ave., Detroit 2, Mich.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Drake Electric Works, 3656 Lincoln Ave., Chicago 11, Ill.
Electric Soldering Iron Co., W. Elm St., Deep River, Conn.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1.
Hexacon Electric Company, 130 W. Clay Ave., Roseton Park, N. J.
Kelnor Mfg. Co., Inc., 1335 Market St., San Francisco 3, Calif.
Kwikheat Mfg. Co., 3732 San Fernando Road, Glendale 4, Calif.
Lenk Mfg. Co., 30 Cummington St., Boston 15, Mass.
LINDE AIR PRODUCTS CO., A DIV. OF UNION CARBIDE & CARBON CORP., 30 E. 42nd St., New York 17, N. Y. ADV. PG. 636.
Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.
Oryx Co., 9015 Wilshire Blvd., Beverly Hills, Calif.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London W.C. 2, England.
Ungar Electric Tools, Inc., 4101 Redwood Ave., Los Angeles 66, Calif.
Vulcan Electric Co., Danvers, Mass.
Wall Mfg. Co., Grove City, Pa.

JACK PANEL ASSEMBLIES

Accurate Electronics Corp., 169 Abbe Rd., S., Elmhurst, Ohio.
Aerolite Electronics Corp., 507 26th St., Union City, N. J.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
Alcon Meal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
Audio Development Co., 2833 13th Ave., S. Minneapolis 7, Minn.
Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
Bernco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
Collins Radio Co., Cedar Rapids, Iowa.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Enflo Corp., Route 38 at Airport Circle, Pensacola, N. J.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
General Metal Products Co., 1010-14 Centre St., Easton, Pa.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

Holland Electronics, 40 Great Jones St., New York 12, N. Y.

INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.

KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.

Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.

NATIONAL TEL-TRONICS CORP., 35 St. Casimir Ave., Yonkers, N. Y. ADV. PG. 642.

Nems-Clarke, Inc., Silver Springs, Md.

North Electric Co., 553 S. Market St., Galion, Ohio.

Nugent Electronics Co., New Albany, Ind.

Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.

POMONA ELECTRONICS CO., INC., 1126 W. Fifth Ave., Pomona, Calif. ADV. PG. 314.

Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.

Remler Company, 2101 Bryant St., San Francisco 10, Calif.

Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.

Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.

Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.

Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.

SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 619.

TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. ADV. PG. 661.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Trimm, Inc., 400 W. Lake St., Libertyville, Ill.

U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.

Waltham Horological Corp., 395 Lynnway, Lynn, Mass.

Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.

SEALETCORP CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 484.

Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.

Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

Stromberg-Carlton Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 619.

Telephonics Corp., Park Ave., Huntington, N. Y.

Telex, Inc., Telex Park, St. Paul 1, Minn.

Trimm, Inc., 400 W. Lake St., Libertyville, Ill.

Tri-Point Plastics, Inc., 177 I.U. Willets Rd., Albertson, N. Y.

UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 65.

U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.

Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

Waltham Horological Corp., 395 Lynnway, Lynn, Mass.

WHITSON, INC., 9328 Byron St., Schiller Park, Ill. ADV. PG. 637.

JEWELS—Glass

BIRD CO., RICHARD H., 1 Spruce St., Waltham, Mass. ADV. PG. 424.

Drake Mfg. Co., 1713 W. Hubbard St., Chicago 22, Ill.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Johnson Co., E. F., Waseca, Minn.

MANSOL CERAMICS CO., 140 Little St., Belleville, N. J. ADV. PG. 697.

Moser Jewel Co., Perth Amboy, N. J.

Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

JOINTS—Rotary, Microwave**See MICROWAVE ACCESSORIES****JUMPERS—Bonding**

Aerolite Electronics Corp., 507 26th St., Union City, N. J.

Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.

Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.

First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

Janco Corp., 3111 Winona Ave., Burbank, Calif.

KEYERS & COUPLERS

BOEHME, INC., H. O., 915 Broadway, New York 10, N. Y. ADV. PG. 556.

General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

General Electronics Corp., 17 Madison Ave., Montgomery 4, Ala.

NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 200-202.

Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.

Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

KEYERS—Frequency Shift

Collins Radio Co., Cedar Rapids, Iowa.

NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 200-202.

Technical Materiel Corp., The, P. O. Box 142, Mamaroneck, N. Y.

KEYS & CODING EQUIPMENT

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.

BOEHME, INC., H. O., 915 Broadway, New York 10, N. Y. ADV. PG. 556.

Electro-Medical Lab., Inc., South Woodstock 8, Vt.

General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.

Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.

Vibroplex Co., Inc., 833 Broadway, New York, N. Y.

Warren Mfg. Co., Inc., The, Newton Rd., Littleton, Mass.

KILOVOLT METERS

BETA ELECTRIC DIV. OF SORENSON CO., INC., 333 E. 103rd St., New York 23, N. Y. ADV. PG. 155, 156.

Electric Design & Mfg. Corp., Burlington, Iowa.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

INDUSTRIAL DEVICES, INC., 982 River Rd., Edgewater, N. J. ADV. PG. 631.

KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.

McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.

Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.

Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.

New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.

OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 650.

Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.

PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.

Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.

RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.

WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.

Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

KLYSTRONS**See TUBES****KNOBS**

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.

ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.

ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.

Autoscrew Co., 216-222 W. 18th St., New York, N. Y.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.

Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.

CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.

Chicago Die Mold Div. of U. S. Rubber Co., 4300 New Haven Ave., Fort Wayne 4, Ind.

Colman Tool & Machine Co., P. O. Box 7026, Amarillo, Texas.

Davies Molding Co., Harry, 1428 N. Wells St., Chicago 10, Ill.

DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. ADV. PG. 638.

DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.

Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.

ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.

Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.

GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.

GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.

GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.

INDUSTRIAL DEVICES, INC., 982 River Rd., Edgewater, N. J. ADV. PG. 631.

INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.

Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.

Kurz-Kasch, Inc., 1421 S. Broadway, Dayton 1, Ohio.

Litton Industries, Beverly Hills, Calif.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo.

Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.

Mutron Corp., 125 Perkins Ave., Brockton, Mass.

National Co., Inc., 61 Sherman St., Malden 48, Mass.

NORRICH PLASTICS CORP., 35 E. 32nd St., New York, N. Y. ADV. PG. 244.

Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.

Olympic Plastic Co., Inc., 3471 S. La Cienega Blvd., Los Angeles 16, Calif.

Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 64, Calif.

Pflegger Products, 3901 W. 54th St., Los Angeles 43, Calif.

Plasteck Inc., Poteau, Okla.

RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.

Remler Company, 2101 Bryant St., San Francisco 10, Calif.

Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.

JACKS

Aerolite Electronics Corp., 507 26th St., Union City, N. J.

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.

Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.

ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.

Audio Development Co., 2833 13th Ave., S. Minneapolis 7, Minn.

Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.

CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.

CANNON ELECTRIC CO., 3208 Humboldt St., Los Angeles 31, Calif. ADV. PG. 44.

Carter Parts Co., 3401 Madison, Skokie, Ill.

CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.

CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.

COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.

Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.

Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa.

GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

GRAYHILL, INC., 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 493.

HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 409.

Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.

INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.

INTERSTATE ELECTRONICS, INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 462.

Javex, P. O. Box 646, Redlands, Calif.

Johnson Co., E. F., Waseca, Minn.

JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 376.

KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.

Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.

Lee Electronic Labs, Inc., 88 Evans St., Watertown, Mass.

Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.

Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.

NATIONAL TEL-TRONICS CORP., 35 St. Casimir Ave., Yonkers, N. Y. ADV. PG. 642.

Nems-Clarke, Inc., Silver Springs, Md.

North Electric Co., 553 S. Market St., Gallon, Ohio.

RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.

Richards Electrocrafft, Inc., 3743 N. Kedzie Ave., Chicago 18, Ill.

Robco Mfg. Co., 225 W. Main St., Patchogue, N. Y.

LABORATORIES

ROGAN BROS., 8031 N. Monticello Ave., Skokie, Ill. ADV. PG. 222.
 Rohden Manufacturing Co., Inc., 4739 Montrose Ave., Chicago 41, Ill.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
 ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
 Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Telex, Inc., Telex Park, St. Paul 1, Minn.
 U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Waterbury Companies, Inc., Waterbury 20, Conn.
 WHITSO, INC., 9328 Byron St., Schiller Park, Ill. ADV. PG. 637.

LABORATORIES—Testing

American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
 American Spectrographic Laboratories, 557 Minna St., San Francisco, Calif.
 Armour Research Foundation, 35 W. 33rd St., Chicago, Ill.
 ASSOCIATED TESTING LABORATORIES, INC., 407 Clinton Rd., Caldwell, N. J. ADV. PG. 627.
 Cook Research Laboratories Div. of Cook Electric Co., 1457 Diversy Parkway, Chicago 14, Ill.
 ELECTRICAL TESTING LABORATORIES, INC., 2 East End Ave., New York 21, N. Y. ADV. PG. 636.
 General Testing Laboratories, Inc., 59 Washington Ave., Carlstadt, N. J.
 Inland Testing Laboratories, 2745 N. Janssen Ave., Chicago 14, Ill.
 International Testing Laboratories, Inc., 580 Market St., Newark 5, N. J.
 New York Testing Laboratories, Inc., 47 West St., New York, N. Y.
 Rototest Laboratories Inc., 2803 Los Flores Blvd., Lynwood, Calif.
 Snell Inc., Foster D., 29 W. 15th St., New York, N. Y.
 SONEIX, INC., 72 S. State Rd., Upper Darby, Pa. ADV. PG. 664.
 United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.
 United States Testing Co., Inc., 1415 Park Ave., Hoboken, N. J.

LABORATORIES, TESTING—Environmental

American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
 ASSOCIATED TESTING LABORATORIES, INC., 407 Clinton Rd., Caldwell, N. J. ADV. PG. 627.
 General Testing Laboratories, Inc., 59 Washington Ave., Carlstadt, N. J.
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
 Hunter-Bristol Corp., Bristol, Pa.
 Parameters, Inc., 195 Herricks Rd., New Hyde Park, N. Y.

LACING CORDS

See CORDS—Lacing

LACQUER

See INSULATING COMPOUNDS

LAMINATES

American Printed Circuits Co., Inc., Forrest St., Metuchen, N. J.
 Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
 ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
 Farley & Loetscher Mfg. Co., Plastics Div., Dubuque, Iowa.
 General Electric Co., Laminated Products Dept., Coshoc-ton, Ohio.
 Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.
 Taylor Fibre Co., Norristown, Pa.

LAMINATES—Metal-Clad

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
 American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
 Beck's, Inc., 298-300 E. Fifth St., Saint Paul 1, Minn.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 Bomyte Co., The, Green St., Silverdale, Pa.
 Formica Co., The, 4587 Spring Grove Ave., Cincinnati 32, Ohio.
 General Electric Co., Laminated Products Dept., Coshoc-ton, Ohio.
 Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J.
 INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 6, Pa. ADV. PG. 189-192.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.

LAMTEX INDUSTRIES, INC., 51 State St., Westbury, N. Y. ADV. PG. 596.
 LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
 METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
 Mica Insulator Co., Schenectady 1, N. Y.
 National Vulcanized Fibre Co., Wilmington, Del.
 NEW ENGLAND LAMINATES CO., INC., P. O. Box 43, 481 Canal St., Stamford, Conn. ADV. PG. 648.
 Northern Plastics Corp., Second & Market Sts., La Crosse, Wis.
 Panelyte Div., St. Regis Paper Co., 261 Madison Ave., New York 16, N. Y.
 REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
 RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 530.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
 Synthane Corp., Oaks, Pa.
 Taylor Fibre Co., Norristown, Pa.
 U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 White Aircraft Corp., Palmer, Mass.

LAMINATIONS—Transformer

Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
 Improved Seamless Wire Co., 775 Eddy St., Providence 5, R. I.
 Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
 KOBZY TOOL CO., 1535 N. Dayton Ave., Chicago 22, Ill. ADV. PG. 581.
 MAGNETIC METALS CO., Hayes Ave., at 21st St., Camden, N. J. ADV. PG. 544.
 MAGNETICS INC., P. O. Box 391, Butler, Pa. ADV. PG. 161-163.
 Repath Pacific Div. of Arnold Engineering Co., 641 E. 61st St., Los Angeles 1, Calif.
 Telex, Inc., Telex Park, St. Paul 1, Minn.
 Tempel Mfg. Co., 1939 Bryn Mawr Ave., Chicago 26, Ill.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
 THOMAS & SKINNER INC., 1122 E. 23rd St., Indianapolis 5, Ind. ADV. PG. 625.
 Topper Mfg. Co., 43 Roselle St., Mineola, N. Y.
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

LAMINATORS OF PLASTIC MATERIALS

See INSULATION PARTS

Plastic Insulation Parts
 Laminated

LAMP BULBS—Miniature

See LIGHTS—Dial, Panel & Pilot

LEADS—Test

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
 ASSOCIATED ENGINEERING CORP., 65 Kent St., Brookline 46, Mass. ADV. PG. 678, 679.
 BEAD CHAIN MANUFACTURING CO., THE, 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 615.
 BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
 Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
 COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
 Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
 GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
 GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
 KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
 Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Mutron Corp., 125 Perkins Ave., Brockton, Mass.
 POMONA ELECTRONICS CO., INC., 1126 W. Fifth Ave., Pomona, Calif. ADV. PG. 314.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
 Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
 Teletronic Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

1957-1958 LISTINGS of

Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
 Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J.

LEAK

See DETECTORS

LEATHERETTE

Apex Coated Fabrics Co., 12 E. 22nd St., New York 10, N. Y.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown Conn.
 Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
 General Tire & Rubber Co., The, Akron, Ohio.

LENSES—Optical

American Optical Co., Instrument Div., Box A, Buffalo 15, N. Y.
 Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
 BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
 Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
 Camera Mart Inc., 1845 Broadway, New York 23, N. Y.
 Eastman Kodak Co., 343 State St., Rochester 4, N. Y.
 Edmund Scientific Corp., 502 E. Gloucester Pike, Barrington, N. J.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
 Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
 Gurley, W. & L. E., 514 Fulton St., Troy, N. Y.
 Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
 Kollsman Instrument Corp., Sub. of Standard Coll. Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y.
 Lewis Co., Inc., E. B., 11 Bragg St., East Hartford 8, Conn.
 O & S Research, Inc., 1811 Bannard St., Riverton, N. J.
 Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 64, Calif.
 Pacific Universal Products Corp., 168 Vista Ave., Pasadena 8, Calif.
 Perkin-Elmer Corp., The, Main Ave., Norwalk, Conn.
 Pittsburgh Plate Glass Co., I Gateway Center, Pittsburgh 22, Pa.
 Polan Industries Inc., P. O. Box 1720, Huntington W. Va.
 Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
 SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.
 Zoomar, Inc., Glen Cove, N. Y.

LENSES—Television

Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
 Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
 Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
 Burke & James, Inc., 321 S. Wabash Ave., Chicago 4, Ill.
 Camera Mart, Inc., 1845 Broadway, New York 23, N. Y.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
 General Precision Laboratory, Inc., 63 Bedford Rd., Pleasantville, N. Y.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
 KIN TEL (KAY LAB), P. O. Box 623, 3725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Perkin-Elmer Corp., The, Main Ave., Norwalk, Conn.
 Television Zoomar Corp., 500 Fifth Ave., New York, N. Y.
 Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.
 Zoomar, Inc., Glen Cove, N. Y.

LENSES—Television Magnifying

Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
 Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
 Perkin-Elmer Corp., The, Main Ave., Norwalk, Conn.
 WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.
 Willson Camera Co., Inc., 1395 Lawrence Rd., Havertown, Pa.

LENSES—Television Projection

Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
Camera Mart Inc., 1845 Broadway, New York 23, N. Y.
Eastman Kodak Co., 343 State St., Rochester 4, N. Y.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
General Precision Laboratory, Inc., 63 Bedford Rd., Pleasantville, N. Y.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
Pacific Universal Products Corp., 168 Vista Ave., Pasadena 8, Calif.
Willson Camera Co., Inc., 1395 Lawrence Rd., Haver- town, Pa.

LIE DETECTORS—Electronic

ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 570.
Electro-Medical Lab., Inc., South Woodstock 8, Vt.
Nevada Air Products Co., P. O. Box 2472, Reno, Nev.

LIGHTING EQUIPMENT—Television

Camera Mart Inc., 1845 Broadway, New York 23, N. Y.
Channel Master Co., Ellenville, N. Y.
Mole-Richardson Co., 937 N. Sycamore Ave., Hollywood 38, Calif.
Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broad- way, New York 19, N. Y. ADV. PG. 733-739.
Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.

LIGHTS—Dial, Panel & Pilot

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 673.
Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
CHICAGO MINIATURE LAMP WORKS, 1500 N. Ogden Ave., Chicago 10, Ill. ADV. PG. 612.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
DIALIGHT CORPORATION, 60 Stewart Ave., Brooklyn 37, N. Y. ADV. PG. 120.
Drake Mfg. Co., 1713 W. Hubbard St., Chicago 22, Ill.
ELDEMA CORP., 9844 Remer St., El Monte, Calif. ADV. PG. 461.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
General Electric Co., Miniature Lamp Dept., Nela Park, Cleveland 12, Ohio.
Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
Herzog Miniature Lamp Works, Inc., 50-17 5th St., Long Island City 1, N. Y.
Hetherington, Inc., Sharon Hill, Pa.
Hudson Lamp Co., 528 Elm St., Kearney, N. J.
INDUSTRIAL DEVICES, INC., 982 River Rd., Edgewater, N. J. ADV. PG. 631.
Kirkland Co., H. R., 8 King St., Morristown, N. J.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mt. Vernon, N. Y. ADV. PG. 685.
Marco Industries Co., 207 S. Helena St., Anaheim, Calif.
National Carbon Co., Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
NATIONAL TEL-TRONICS CORP., 35 St. Casimir Ave., Yonkers, N. Y. ADV. PG. 642.
Oxford Electric Corp., 3911 S. Michigan Ave., Chi- cago 15, Ill.
Plasteck, Inc., Poteau, Okla.
Radar Relay, Inc., 2120 Pontius Ave., Los Angeles 25, Calif.
Signalite, Inc., 37-41 Neptune Highway, Neptune, N. J.
Smith Mfg. Co., J. & H., Little Britain Rd., New- burgh, N. Y.
SYLVANIA ELECTRONIC PRODUCTS INC., 1740 Broad- way, New York 19, N. Y. ADV. PG. 733-739.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 361.

LIGHTS—Photoelectric Source

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 673.
Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.
Eleta Ltd., Bad Ragaz, Switzerland.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
General Electric Co., Miniature Lamp Dept., Nela Park, Cleveland 12, Ohio.
Hupp Electronics Co., A Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.
Illumitronic Engineering, 680 E. Taylor, Sunnyvale, Calif.
Lumenite Electric Co., 407 S. Dearborn St., Chicago 5, Ill.
Machinery Electrification, Inc., Northboro, Mass.
Optron Corp., 3526 State St., Santa Barbara, Calif.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.

LIGHTS—Signal

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 673.
Amglo Corp., 4333 N. Ravenswood Ave., Chicago 13, Ill.
Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
Brunswick Instruments, P. O. Box 813, New Brunswick, N. J.
CHICAGO MINIATURE LAMP WORKS, 1500 N. Ogden Ave., Chicago 10, Ill. ADV. PG. 612.
DIALIGHT CORPORATION, 60 Stewart Ave., Brooklyn 37, N. Y. ADV. PG. 120.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
General Electric Co., Miniature Lamp Dept., Nela Park, Cleveland 12, Ohio.
INDUSTRIAL DEVICES, INC., 982 River Rd., Edge- water, N. J. ADV. PG. 631.
Kemlite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill.
Kirkland Co., H. R., 8 King St., Morristown, N. J.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mt. Vernon, N. Y. ADV. PG. 685.
North American Electric Lamp Co., 1014 Tyler St., St. Louis 6, Mo.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TUNG-SOL ELECTRIC, INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 361.

LIGHTS—Stroboscopic Source

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 673.
Amglo Corp., 4333 N. Ravenswood Ave., Chicago 13, Ill.
GENERAL RADIO CO., 275 Massachusetts Ave., Cam- bridge 39, Mass. ADV. PG. 316, 317.
Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
Kemlite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill.
Pantek Co., Box 212, El Segundo, Calif.
Radar Relay, Inc., 2120 Pontius Ave., Los Angeles 25, Calif.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broad- way, New York 19, N. Y. ADV. PG. 733-739.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.

LINES—Slotted

Admittance-Namco Corp., Farmingdale, N. Y.
AIRCOM INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.
ALFORD MFG. CO., INC., 299 Atlantic Ave., Boston, Mass. ADV. PG. 398.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 New- port Blvd., Santa Ana, Calif. ADV. PG. 541.
Defiance Engineering & Microwave Corp., Box 488, Beve- ly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
Elco Mfg. Co., 137 Herricks Rd., New Hyde Park, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Ferris Instrument Co., 110 Cornelia St., Boonton, N. J.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
GENERAL RADIO CO., 275 Massachusetts Ave., Cam- bridge 39, Mass. ADV. PG. 316, 317.
Graham Mfg. Co., Inc., 247 Bridge St., East Green- wich, R. I.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
TECHNICRAFT LABORATORIES, INC., Thomaston- Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farming- dale, N. Y. ADV. PG. 428.
Waveline, Inc., Box 470, Caldwell, N. J.

LINKS—Antenna

DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.

LINKS—Television Microwave See MICROWAVE ACCESSORIES

LIQUID LEVEL See CONTROLS INDICATORS

LITHIUM COMPOUNDS See METALS

LOADS—Dummy See ANTENNAS—Dummy Loads

LOCATORS—Cable & Line Fault

Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., Box 10, Morristown, N. J.
Electro-Measurements, Inc., 7524 S.W. Macadam, Portland 1, Ore.
GENERAL COMMUNICATION CO., 681 Beacon St., Bos- ton 15, Mass. ADV. PG. 563.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500.
RADAR ENGINEERS, 403 E. 45th St., Seattle 5, Wash. ADV. PG. 615.
Rubicon Co., Ridge Ave., at 35th St., Philadelphia 29, Pa.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas 280, 281.

LOCATORS—Pipe & Cable

Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., Box 10, Morristown, N. J.
Bludworth Marine Div., Kearfoot Co., Inc., 92 Gold St., New York 38, N. Y.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
Goldak Co., Inc., The Dept E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
Menlo Research Laboratory, 538 Phelan Ave., San Jose, Calif.
Nilsson Electrical Laboratory, Inc., 103 Lafayette St., New York 13, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 600 Lemmon Ave., Dallas 9, Texas ADV. PG. 280, 281.

LOCKS—Dial

AUGAT BROS., INC., 33 Perry Ave., Attleboro, Mass. ADV. PG. 517.
Bud Radio, Inc., 2118 E. 45th St., Cleveland 3, Ohio.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
Croname, Inc., 1747 Grace St., Chicago 13, Ill.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brook- lyn 11, N. Y.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brook- lyn 10, N. Y.

LOCKS—Shaft

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
Cardwell Co., Allen D., The 97 Whiting St., Plain- view, Conn.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brook- lyn 11, N. Y.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 476.

LORAN SYSTEMS

Edo Corp., College Point, N. Y.

LOUVERS—Chassis Ventilating

A&P Metal Products Mfg. Corp., 111 Bloomingdale Rd., Hicksville, N. Y.
Amco Engineering Co., 7335 Ainslie St., Chicago 31, Ill.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 538.
General Metal Products Co., 1010-14 Centre St., East- ton, Pa.
MIDGET LOUVER CO., 6 Wall St., Norwalk, Conn. ADV. PG. 508.
Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
White Aircraft Corp., Palmer, Mass.

LUGS See TERMINALS

MACHINES—Bending

DESIGN TOOL CORP., 80 Washington St., New York 6, N. Y. ADV. PG. 678.
 KENT CO., F. C., 64 Howard St., Irvington, N. J. ADV. PG. 634.
 O'Neill-Irwin Mfg. Co., 316 Eighth Ave., Lake City, Minn.
 Stueck, Inc., W. Whitney, Old Saybrook, Conn.

MACHINES—Blueprint

Bruning Co., Inc., Charles, 4700 Montrose Ave., Chicago 41, Ill.
 Paragon-Revolute Corp., 71 South Ave., Rochester 4, N. Y.
 Pease Co., C. F., 2601 W. Irving Park Rd., Chicago, Ill.
 Peck & Harvey Mfg. Corp., 5650 N. Western Ave., Chicago 45, Ill.

MACHINES—Capacitor Manufacturing

ASSOCIATED AMERICAN TRADING DIVISION, 750 St. Ann's Ave., New York 56, N. Y. ADV. PG. 573.
 Condenser Machinery Co., Stamford, Conn.

MACHINES—Cleaning

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
 Blackstone Corp., 1111 Allen St., Jamestown, N. Y.
 BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 605.
 Cobehn, Inc., 100 Passaic Ave., Caldwell, N. J.
 Cro-Plate Co., Inc., The, 747 Windsor St., Hartford 1, Conn.
 Industrial Systems Co., Matawan, N. J.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.
 L & R Mfg. Co., 580 Elm St., Arlington, N. J.

MACHINES—Coil Winding

Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
 ASSOCIATED AMERICAN TRADING DIVISION, 750 St. Ann's Ave., New York 56, N. Y. ADV. PG. 573.
 Associated Engineering & Mfg. Co., Glen Ridge, N. J.
 BOESCH MFG. CO., Danbury, Conn. ADV. PG. 520.
 British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
 COIL WINDING EQUIPMENT CO., 109 Audrey Ave., Oyster Bay, N. Y. ADV. PG. 488, 489.
 Cosa Corp., 405 Lexington Ave., New York 17, N. Y.
 Crown Industrial Products Co., 713 Amsterdam Ave., Woodstock, Ill.
 EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.
 Halm Instrument Co., Inc., Glen Head Rd., Glen Head, N. Y.
 INDUSTRIAL WINDING MACHINERY CO., 120 Wall St., New York 5 N. Y. ADV. PG. 651.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 522.
 NORTH HILLS ELECTRIC CO., INC., 402 Sagamore Ave., Mineola, N. Y. ADV. PG. 428.
 Perkin Machine & Gear Co., Special Machinery Div., West Springfield, Mass.
 Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
 STEVENS MFG. CO., INC., GEORGE, 6022 N. Rogers Ave., Pulaski & Peterson, Chicago 30, Ill. ADV. PG. 586.
 Universal Winding Co., P. O. Box 1605, Providence 1, R. I.

MACHINES—Coil Winding, Toroidal

ARNOLD MAGNETICS CORP., 4613 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 553.
 ASSOCIATED AMERICAN TRADING DIVISION, 750 St. Ann's Ave., New York 56, N. Y. ADV. PG. 573.
 BOESCH MFG. CO., Danbury, Conn. ADV. PG. 520.
 Cosa Corp., 405 Lexington Ave., New York 17, N. Y.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Electro Devices Inc., 480 Main St., Wilmington, Mass.
 Harder Co., Donald C., 3710 Midway Drive, San Diego 10, Calif.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
 REX RHEOSTAT CO., 3 Foxhurst Rd., Baldwin, N. Y. ADV. PG. 590.
 STEVENS MFG. CO., INC., GEORGE, 6022 N. Rogers Ave., Pulaski & Peterson, Chicago 30, Ill. ADV. PG. 586.
 UNIVERSAL MFG. CO., INC., 410 Hillside Ave., Hillside, N. J. ADV. PG. 296.

MACHINES—Counting (Photoelectric)

Acme Electronix Div. of NEA Service, Inc., West Third & Lakeside, Cleveland 13, Ohio.
 Automation Management, Inc., Westboro, Mass.

Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.
 BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
 FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
 Hupp Electronics Co., A Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.
 Magnuson Engineers, Inc., 509 Emory St., San Jose 10, Calif.
 Optron Corp., 3526 State St., Santa Barbara, Calif.
 Pantek Co., Box 212, El Segundo, Calif.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

MACHINES—Crystal Manufacturing & Finishing

Bassett, Inc., Rex, 1314 N.E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
 Crane Packing Co., 6402 Dakton St., Morton Grove, Ill.
 F & M Sales, Inc., 1054 Cahuena Blvd., Hollywood 38, Calif.
 Hoffman Co., P. R., Carlisle, Pa.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.
 Lepel High Frequency Labs., Inc., 55th St. & 7th Ave., Woodside 77, N. Y.
 Micromech Mfg. Corp., 1020 Commerce Ave., Union, N. J.
 NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.
 United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

MACHINES—Cutting

ACME WIRE MACHINE CO., 234 E. 3rd St., New York, N. Y. ADV. PG. 547.
 American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
 DESIGN TOOL CORP., 80 Washington St., New York 6, N. Y. ADV. PG. 678.
 EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.
 Electro Wire Service, 5 Beekman St., New York 7, N. Y.
 Hobbs Mfg. Co., 26 Salisbury St., Worcester, Mass.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.
 Micromech Mfg. Corp., 1020 Commerce Ave., Union, N. J.
 O'Neill-Irwin Mfg. Co., 316 Eighth Ave., Lake City, Minn.
 Radial Cutter Corp., 831 Bond St., Elizabeth, N. J.
 United Shoe Machinery Corp., 140 Federal St., Boston 7, Mass.

MACHINES—Disc Recording

Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
 Presto Recording Corp., P. O. Box 500, Paramus, N. J.
 Rek-o-Kut Co., Inc., 38-01 Queens Blvd., Long Island City 1, N. Y.
 TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

MACHINES—Electric Soldering

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Cole Radio Works, 86 Westville Ave., Caldwell, N. J.
 EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.
 Electronic Products Corp., 322 State St., Santa Barbara, Calif.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 GOOD-ALL ELECTRIC MFG. CO., 112 W. First St., Ogallala, Neb. ADV. PG. 124.
 Induction Heating Corp., 181 Wythe Ave., Brooklyn 11, N. Y.
 Hayes Inc., C. I., 800 Wellington Ave., Cranston, R. I.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.
 Lepel High Frequency Labs., Inc., 55th St. & 37th Ave., Woodside 77, N. Y.
 PATTON-MAC GUYER CO., 17 Virginia Ave., Providence 5, R. I. ADV. PG. 590.

MACHINES—Electronic Balancing

International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Columbus 16, Ohio.
 Micro Balancing, Inc., 191 Herricks Rd., Garden City Park, N. Y.

MACHINES—Electronic Dictating

Dictaphone Corp., 420 Lexington Ave., New York 17, N. Y.
 Miles Reproducer Co., Inc., 812 Broadway, New York 3, N. Y.
 Technical Associates, 140 W. Providencia Ave., Burbank, Calif.

MACHINES—Electronic Transcribing

Alwac Corp., 13041 S. Cerise Ave., Hawthorne, Calif.

Dictaphone Corp., 420 Lexington Ave., New York 17, N. Y.
 Technical Associates, 140 W. Providencia Ave., Burbank, Calif.

MACHINES—Engraving and Profiling

Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Auto Engraver Co., Ridgefield, Conn.
 GREEN INSTRUMENT CO., 363A Putnam Ave., Cambridge, Mass. ADV. PG. 566.
 MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 522.
 NEW HERMES ENGRAVING MACHINE CORP., 13-19 University Place, New York 3, N. Y. ADV. PG. 687.
 Preis Engraving Machine Co., H. P., 651 U. S. Highway 22, Hillside, N. J.
 Technicraft Co., 1156 Commonwealth Ave., Boston 34, Mass.

MACHINES—Forming

DESIGN TOOL CORP., 80 Washington St., New York 6, N. Y. ADV. PG. 678.
 Hull-Standard Corp., Abington, Pa.
 Hydraulic Press Mfg. Co., A Div. of Koehring Co., Mt. Gilead, Ohio.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.
 O'Neill-Irwin Mfg. Co., 316 Eighth Ave., Lake City, Minn.

MACHINES—Glass Blowing

Associated Engineering & Mfg. Co., Glen Ridge, N. J.
 EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.
 Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.
 Litton Engineering Laboratories, P. O. Box 949, Grass Valley, Calif.
 Pioneer Machine Works, Inc., 6136 Adams St., West New York, N. J.
 Torrance Glass & Color Works, Torrance, Calif.

MACHINES—Glass Working

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
 EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.
 Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.
 Litton Engineering Laboratories, P. O. Box 949, Grass Valley, Calif.
 O & S Research, Inc., 1811 Bannard St., Riverton, N. J.
 Pioneer Machine Works, Inc., 6136 Adam St., West New York, N. J.
 SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 670.
 Standard Tool & Mfg. Co., Arlington, N. J.
 Torrance Glass & Color Works, Torrance, Calif.

MACHINES—Impregnating

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Barrett Co., Leon J., The, 1776 Grafton Rd., Worcester 1, Mass.
 High Vacuum Equipment Corp., 2 Churchill Rd., Hingham, Mass.
 Hull Corporation, Abington, Pa.
 Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston, Mass.
 Metaplast Corp., Davisville Rd. at Pa. Turnpike, Hatboro, Pa.
 NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.
 Red Point Corp., 1907 Riverside Drive, Glendale 1, Calif.
 Stokes Co., F. J., 5500 Tabor Rd., Philadelphia 20, Pa.

MACHINES—Marking

Ackerman-Gould Co., 92 Bleecker St., New York, N. Y.
 Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
 Aerolab Development Co., 330 W. Holly St., Pasadena, Calif.
 Annis Co., R. B., 1101 N. Delaware St., Indianapolis, Ind.
 Apex Machine Co., 14-13 118th St., College Point 56, N. Y.
 Auto Engraver Co., Ridgefield, Conn.
 Coxhead Co., Ralph C., Newark, N. J.
 Diamond-Union Stamp Works, 81 Washington St., Boston 8, Mass.
 General Research & Supply Co., 572 S. Division Ave., Grand Rapids 3, Mich.
 High Speed Hammer Co., Rochester, N. Y.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.
 Markem Machine Co., Keene, N. H.
 MARKWIK MFG. CO., INC., 31 Sexton Rd., Plainview, N. Y. ADV. PG. 498.

Marsh Stencil Machine Co., 46 Marsh Bldg., Belleville, Ill.
NEW HERMES ENGRAVING MACHINE CO., 13-19 University Place, New York 3, N. Y. ADV. PG. 687.
 Noble & Westbrook Mfg. Co., 27 Westbrook St., East Hartford 8, Conn.
 Numberall Stamp & Tool Co., Huguenot Park, Staten Island 12, N. Y.
POPPER & SONS, INC., 300 Fourth Ave., New York 10, N. Y. ADV. PG. 420.
PRECISE MEASUREMENTS CO., R. D. #1, Millbrook Rd., Flemington, N. J. ADV. PG. 399.
 Preis Engraving Machine Co., H. P., 651 U. S. Highway 22, Hillside, N. J.
 Swift & Sons, M., 10 Love Lane, Hartford 1, Conn.

MACHINES—Modular & Automatic Assembly

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 236.
DESIGN TOOL CORP., 80 Washington St., New York 6, N. Y. ADV. PG. 678.
INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.
 Mechanical Div. of General Mills, Inc., 1620 Central Ave., Minneapolis 13, Minn.
 United Shoe Machinery Corp., 140 Federal St., Boston 7, Mass.

MACHINES—Photocopy & Whiteprint

American Photocopy Equipment Co., 1920 W. Peterson, Chicago 26, Ill.
 Bruning & Co., Inc., Charles, 4700 Montrose Ave., Chicago 41, Ill.
 Eastman Kodak Co., 343 State St., Rochester 4, N. Y.
 General Photo Products Co., Inc., General Photo Bldg., 15 Summit Ave., Chatham, N. Y.
 Haloid Co., The, 6 Haloid St., Rochester 3, N. Y.
 Ozalid Div. of General Aniline & Film Corp., 770 Anso Rd., Johnson City, N. Y.
 Paragon-Revolute Corp., 71 South Ave., Rochester 4, N. Y.
 Pease Co., C. F., 2601 W. Irving Park Rd., Chicago, Ill.
 Peerless Photo Products, Inc., Shoreham, N. Y.

MACHINES—Record Manufacturing

Hull-Standard Corp., Abington, Pa.

MACHINES—Shock Testing

ASSOCIATED TESTING LABORATORIES, INC., 407 Clinton Rd., Caldwell, N. J. ADV. PG. 627.
 Chaitillon & Sons, John, 85 Cliff St., New York, N. Y.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Genisico, Inc., 2233 Federal Ave., Los Angeles 64, Calif.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Telebro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

MACHINES—Tube Manufacturing

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.
KENT CO., F. C., 64 Howard St., Irvington, N. J. ADV. PG. 634.
 Litton Engineering Laboratories, P. O. Box 949, Grass Valley, Calif.
 Pioneer Machine Works, Inc., 6136 Adam St., West New York, N. J.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Standard Tool & Mfg. Co., Arlington, N. J.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.

MACHINES—Vibration Fatigue Testing

All American Tool & Mfg. Co., 8027 Lawndale, Skokie, Ill.
ASSOCIATED TESTING LABORATORIES, INC., 407 Clinton Rd., Caldwell, N. J. ADV. PG. 627.
CALIDYNE CO., THE, 120 Cross St., Winchester, Mass. ADV. PG. 472.
LING ELECTRONICS, INC., 5120 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
 Litton Industries, Beverly Hills, Calif.
MB MFG. DIV. OF TEXTRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 552.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

MACHINES—Wire Stripping

ACME WIRE MACHINE CO., 234 E. 3rd St., New York, N. Y. ADV. PG. 547.
 Electro Wire Service, 5 Beekman St., New York 7, N. Y.
 High Speed Hammer Co., Rochester, N. Y.
 Rush Wire Stripper Div., The Eraser Co., Inc., 1068 S. Clinton St., Syracuse 4, N. Y.

STEVENS MFG. CO., INC., GEORGE, 6022 N. Rogers Ave., Pulaski & Peterson, Chicago 30, Ill. ADV. PG. 586.
 Technical Devices Co., 2346 Centinela Ave., Los Angeles 64, Calif.
THOMAS INSTRUMENT CO., Three Rivers, Phoenix, N. Y. ADV. PG. 420.

MAGNETIC ANALYSIS EQUIPMENT

DAVIES LABORATORIES DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 10721 Hanna St., Beltsville, Md. ADV. PG. 446.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HAMMER ELECTRONICS CO., INC., Box 531, Princeton, N. J. ADV. PG. 671.
 Magnetic Analysis Corp., 42-44 12th St., Long Island City 1, N. Y.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.
 Perkin-Elmer Corp., The, Main Ave., Norwalk, Conn.
 Philips Electronics, Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
 Rese Engineering Corp., 731 Arch St., Philadelphia 6, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.

MAGNETIC FLUX METERS
See FLUXMETERS**MAGNETIZERS AND DEMAGNETIZERS**

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Amplifier Corp. of America, 396 Broadway, New York 13, N. Y.
 Annis Co., R. B., 1101 N. Delaware St., Indianapolis, Ind.
 Bekey Electric Co., Inc., 1327 S. Main St., Los Angeles 15, Calif.
 Caltron Products Co., 3518 W. Pico Blvd., Los Angeles 19, Calif.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
 Dubrow Development Co., 235 B Penn St., Burlington, N. J.
GENERAL ELECTRIC CO., MAGNETIC MATERIALS SECTION, 7780 Neff Rd., Edmore, Mich. ADV. PG. 1-12.
 Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
 King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.
 Klein-Electronics, Leo, 2404 S. La Brea Ave., Los Angeles 16, Calif.
LIBRASCOP, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
 Magnasync Mfg. Co., Ltd., 5546, Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Magnetic Analysis Corp., 42-44 12th St., Long Island City 1, N. Y.
 Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.
 Osborne Electric Co., 712 S. E. Hawthorne, Portland 14, Ore.
PERMAG CORP., 214 Taaffe Place, Brooklyn 5, N. Y. ADV. PG. 661.
RADIO FREQUENCY LABS, INC., Boonton 2, N. J. ADV. PG. 555.
 Ram Meter, Inc., 1100 Hilton Rd., Ferndale, Detroit 20, Mich.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
 Trent Tube Co., East Troy, N. Y.

MAGNETOMETERS

See INSTRUMENTS—Electrical Measuring

MAGNETRONS
See TUBES**MAGNETS—Permanent**

ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 322, 323.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
 Crowley Div. of Aerovox Corp., 1 Central Ave., West Orange, N. J.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

GENERAL ELECTRIC CO., MAGNETIC MATERIALS SECTION, 7780 Neff Rd., Edmore, Mich. ADV. PG. 16, 17.

General Magnetic Corp., 10001 Erwin Ave., Detroit 34, Mich.
 Glaser-Steers Corp., 2 Main St., Belleville 9, N. J.
INDIANA STEEL PRODUCTS CO., Valparaiso, Indiana. ADV. PG. 20.
 Murex Ltd., Rainham, Essex, England.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
PERMAG CORP., 214 Taaffe Place, Brooklyn 5, N. Y. ADV. PG. 661.
 Plamondon Magnetics Co., 1850 W. Hubbard St., Chicago 22, Ill.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
 Stackpole Carbon Co., St. Mary's Pa.
 Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
THOMAS & SKINNER INC., 1122 E. 23rd St., Indianapolis 5, Ind. ADV. PG. 625.
 Trent Tube Co., East Troy, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Yale & Towne Mfg. Co., Powdered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.

MANUFACTURERS' REPRESENTATIVES
See Pages 41, 700 to 714**MARKERS—Frequency, Microwave**
See MICROWAVE ACCESSORIES**MARKERS—Wire**

Ackerman-Gould Co., 92 Bleecker St., New York, N. Y.
 Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
 Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
 Apex Machine Co., 14-13 118th St., College Point 56, N. Y.
 Brady Co., W. H., 727 W. Glendale Ave., Milwaukee 12, Wis.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic, Conn. ADV. PG. 199.
 Duramark, Inc., 2 Secatog Ave., Port Washington, N. Y.
 Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
 Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
 General Plastics Corp., P. O. Box 1236, Paterson, N. J.
 Markal Co., 3052 W. Carroll Ave., Chicago 12, Ill.
MARKWIK MFG. CO., INC., 31 Sexton Rd., Plainview, N. Y. ADV. PG. 498.
 Matthews & Co., Jas. H., 3926 Forbes St., Pittsburgh 13, Pa.
NORTH SHORE NAMEPLATE INC., 214-27 Northern Blvd., Bayside 61, N. Y. ADV. PG. 486.
 Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
WESTLINE PRODUCTS DIV. OF WESTERN LITHOGRAPH CO., 600 E. Second St., Los Angeles 54, Calif. ADV. PG. 470.

MARKING STAMPS

See STAMPS—Marking

MASKS—Aperture

See PARTS for COLOR TV TUBES

MASKS—Television

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Croname, Inc., 1747 Grace St., Chicago 13, Ill.
 Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
 Jodee Plastics Corp., 213 Shepherd Ave., Brooklyn 8, N. Y.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 86, 87.

MECHANICAL TOOLS

See TOOLS—Hand or Mechanical

MEGAPHONES—Electronic

Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
 Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.

MEGOhmmeters

See INSTRUMENTS—Electrical Measuring

MEGOhmmeters—Vacuum Tube

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Bruel & Kjaer, Naerum, Denmark.
COMMUNICATION MEASUREMENTS LAB., INC., 350 Leland Ave., Plainfield, N. J. ADV. PG. 547.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP.,
INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
Kuljian Corp., The Electronics Div., 1200 N. Broad St., Philadelphia 21, Pa.
MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
STICHT CO., INC., **HERMAN H.**, 27 Park Place, New York 7, N. Y. ADV. PG. 649.
Teletro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.

MEMORY SYSTEMS

Beck's, Inc., 298-300 E. Fifth St., Saint Paul 1, Minn.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 584.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
Daystrom Instrument, Archbald, Pa.
Electro Data Div. of Burroughs Corp., 460 Sierra Madre Villa, Pasadena 6, Calif.
Industrial Electronic Engineers, 3973 Lankershim Blvd., North Hollywood, Calif.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
Litton Industries, Beverly Hills, Calif.
Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.
Magne-Pulse Corp., 247 Crooks Ave., Clifton, N. J.
Magnetics Research Co., Cor. Grove St. & E. Post Rd., White Plains, N. Y.
Nelson Instrument Co., 607 Howard St., Evanston, Ill.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.
Remington Rand Univac Div. of Sperry Rand Corp., Univac Par, St. Paul 16, Minn.
Rese Engineering Corp., 731 Arch St., Philadelphia 6, Pa.
Seeburg, J. P., A Div. of Fort Pitt Industries, Inc., 1500 N. Dayton St., Chicago 22, Ill.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. ADV. PG. 630.

MESH—Knitted Wire

See **TUBING—Woven or Knitted Wire**

METAL CONES—Television

See **CONES—Metal Television**

METAL PARTS—Bushings

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 644.
Amatom Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
Anti-Corrosive Products Co., Castleton-on-Hudson, N. Y.
Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
BEAD CHAIN MANUFACTURING CO., THE, 110 Mounttain Grove St., Bridgeport 5, Conn. ADV. PG. 615.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC.,
Electronic Div., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
Haynes Stellite Co., A Div. of Union Carbide & Carbon Corp., 725 S. Lindsay St., Kokomo, Ind.
Heldor Mfg. Corp., 238 Lewis St., Paterson, N. J.
Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
NORRICK PLASTICS CORP., 35 E. 32nd St., New York, N. Y. ADV. PG. 244.
Research Development Manufacture, Inc., 429 E. Collom St., Philadelphia 44, Pa.
St. Marys Carbon Company, State Rd., St. Marys, Pa.
Sinclair Mfg. Co., Chartley, Mass.
Smith, Inc., Herman H. 2326 Nostrand Ave., Brooklyn 10, N. Y.
Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
UNIWARE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
U. S. Graphite Co., Div. of The Wickes Corp., Saginaw 32, Mich.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
Wrought Washer Mfg. Co., 2264 S. Bay St., Milwaukee 7, Wis.

METAL PARTS—Castings

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
Alloy Precision Casting Co., E. 45th St. & Hamilton Ave., Cleveland 14, Ohio.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
Arwood Precision Casting Corp., 75 Washington St., Brooklyn, N. Y.
Automatic Processing Corp., 1335 N. Wells St., Chicago, Ill.
Bean & Co., Morris, Yellow Springs, Ohio.
Beryllium Corp., Reading, Pa.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
Dollin Corp., 640 S. 21st St., Irvington 11, N. J.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
GRIES REPRODUCER CORP., 100 Willow Ave., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
Haynes Stellite Co., A Div. of Union Carbide & Carbon Corp., 725 S. Lindsay St., Kokomo, Ind.
Hitchiner Manufacturing Co., Inc., P. O. Box 232, Milford, N. H.
I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
Investment Casting Co., 60 Brown Ave., Springfield, N. J.
Misco Precision Casting Co., Gibbs & Larsen Sts., Whitehall, Mich.
Nilsen Mfg. Co., Addison, Ill.
STANDARD RECORD MFG. CO., 70 N. San Gabriel Blvd., Pasadena, Calif. ADV. PG. 655.
Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
Telner Engineering Corp., 116 Madison St., Malden, Mass.
Trent Tube Co., East Troy, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

METAL PARTS—Contacts

See **CONTACTS—Electrical**

METAL PARTS—Deep-Drawn

A&P Metal Products Mfg. Corp., 111 Bloomingdale Rd., Hicksville, N. Y.
ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 644.
Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
Amatom Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
AMERICAN ALUMINUM CO., Sheffield St.-C, Mountaintside, N. J. ADV. PG. 604.
American Brass Co., 414 Meadow St., Waterbury 20, Conn.
Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
Beryllium Corp., Reading, Pa.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.
Eastern Tool & Specialty Co., 1 Montgomery St., Belleville 9, N. J.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 609.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC.,
179 Berger St., Wood-Ridge, N. J. ADV. PG. 538.
Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.
Heldor Mfg. Corp., 238 Lewis St., Paterson, N. J.
Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
HUDSON TOOL & DIE CO., 118 S. 14th St., Newark, N. J. ADV. PG. 185.
I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
Impact Extrusion Products, Inc., 39 Powderhouse Rd., Roslyn Heights, N. Y.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 86-87.
KAUPP & SONS, C. B., 32 Newark Way, Maplewood, N. J. ADV. PG. 275.
King Laboratories, Inc., 127 Solar St., Syracuse 3, N. Y.
Kling Metal Spinning Co., 247 Centre St., New York 13, N. Y.
LEYSE ALUMINUM CO., Kewaunee, Wis. ADV. PG. 452.

METHODE MFG. CORP., 2021 W. Churchill St., Chicago 47, Ill. ADV. PG. 204.
Northern Metal Products Co., 9597 W. Grand Ave., Franklin Park, Ill.
Olin Mathieson Chemical Corp., 460 Park Ave., New York 22, N. Y.
Olympic Metal Products Co., Inc., Third Ave., Alpha, N. J.
Paul & Beekman, Inc., 1801 Cortland St., Philadelphia 40, Pa.
Quadrige Mfg. Co., 213 W. Grand Ave., Chicago 10, Ill.
Repath Pacific Div. of Arnold Engineering Co., 641 E. 61st St., Los Angeles 1, Calif.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
Scovill Manufacturing Co., Waterbury 20, Conn.
Sinclair Mfg. Co., Chartley, Mass.
Stanley Pressed Metal Div. of The Stanley Works,
New Britain, Conn.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
Telner Co., Inc., Roland, 134 Tremont St., Everett 49, Mass.
UNITED-CARR FASTENER CORP., Cambridge 42, Mass. ADV. PG. 64.
Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.
Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
Waterbury Pressed Metal Co. P-M Nut Div., 300 Chase Ave., Waterbury 14, Conn.
Worcester Pressed Aluminum Corp., 13-15 Hope Ave., Worcester, Mass.
Worcester Pressed Steel Co., 101 Barber Ave., Worcester 6, Mass.
ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 634.

METAL PARTS—Laminated

BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC.,
179 Berger St., Wood-Ridge, N. J. ADV. PG. 538.
GENERAL FINDINGS & SUPPLY CO., INDUSTRIAL DIV., Attleboro, Mass. ADV. PG. 327.
I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
METALS & CONTROLS CORP., GENERAL PLATE DIV.,
31 Forest St., Attleboro, Mass. ADV. PG. 167.
Mid-West Conveyor Co., Inc., Metal Products Div.,
7th & Sunshine Rd., Fairfax District, Kansas City, Kan.
NATIONAL TEL-TRONICS CORP., 35 St. Casimirs Ave., Yonkers, N. Y. ADV. PG. 642.
Sinclair Mfg. Co., Chartley, Mass.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
WILSON CO., H. A., THE, 2655 U. S. Hwy. 22, Union, N. J. ADV. PG. 257.

METAL PARTS—Lead

Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
Associated Engineering & Mfg. Co., Glen Ridge, N. J.
Division Lead Co., 7742 W. 61st Place, Summit, Ill.
I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
Kling Metal Spinning Co., 247 Centre St., New York, N. Y.
National Lead Co., 111 Broadway, New York 6, N. Y.
Quadrige Mfg. Co., 213 W. Grand Ave., Chicago 10, Ill.
STAR EXPANSION PRODUCTS CO., INC., 142 Liberty St., New York 6, N. Y. ADV. PG. 588.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.

METAL PARTS—Powdered

GENERAL ELECTRIC CO., MAGNETIC MATERIALS SECTION, 7780 Neff Rd., Edmore, Mich. ADV. PG. 16, 17.
I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
Keystone Carbon Co., Inc., Saint Marys, Pa.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
St. Mary's Carbon Company, State Rd., St. Marys, Pa.
Scovill Manufacturing Co., Waterbury 20, Conn.
Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.

U. S. Graphite Co., Div. of The Wickes Corp., Saginaw 32, Mich.
WILSON CO., H. A., THE, 2655 U. S. Hwy. 22, Union, N. J. ADV. PG. 257.
 Yale & Towne Mfg. Co., Powdered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.

METAL PARTS—Screw Machine

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 644.
Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
Allied Industries, Inc., 25th & Woodland Ave., Louisville 10, Ky.
Allied Products Div. Hamilton Watch Co., Lancaster, Pa.
Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
Anatom Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
American Hinge Corp., 206 Wallabout St., Brooklyn 6, N. Y.
American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
Automatic Processing Corp., 1335 N. Wells St., Chicago, Ill.
Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
Beryllium Corp., Reading, Pa.
Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
Connector Corp. of America, 3223 Burton Ave., Burbank, Calif.
Eastern Specialty Co., Philadelphia 40, Pa.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
Gear Systems Inc., Div. of Geartronics Corp., Main St., West Concord, Mass.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
GENERAL FINDINGS & SUPPLY CO., INDUSTRIAL DIV., Attleboro, Mass. ADV. PG. 327.
Gleason-Avery Co., Auburn, N. Y.
Greer Stop Nut Co., 2620 W. Flournoy St., Chicago 12, Ill.
Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
Hofmann Needle Works, Inc., Alfred, 3710 Hudson Ave., Union City, N. J.
I. E. Manufacturing, 325 N. Hoynes Ave., Chicago 12, Ill.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
Massachusetts Gear & Tool Div. of Geartronics Corp., 30 Nashua St., Woburn, Mass.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Moody Machine Products Co., Inc., 39 Dudley St., Providence 5, R. I.
National Screw & Mfg. Co., The, Cleveland 4, Ohio.
NATIONAL TEL-TRONICS CORP., 35 St. Casimir Ave., Yonkers, N. Y. ADV. PG. 642.
O & S Research, Inc., 1811 Bannard St., Riverton, N. J.
Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
Pfeifer Products, 3901 W. 54th St., Los Angeles 43, Calif.
Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.
Research Development Manufacture, Inc., 429 E. Collom St., Philadelphia 44, Pa.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
Scovill Manufacturing Co., Waterbury 20, Conn.
Scinclair Mfg. Co., Chartley, Mass.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Standard Locknut & Lockwasher Inc., 2250 Valley Ave., Indianapolis 18, Ind.
Stanley-Judd Div. of Stanley Works, Wallingford, Conn.
Stanley Tools, New Britain, Conn.
Steel Co., Herman D., Lafayette Bldg., Philadelphia 6, Pa.
Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia 32, Pa.
Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
Stevens-Walden, Inc., 475 Shrewsbury St., Worcester 4, Mass.

Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
Tru-Connector Corp., 416 Union St., Lynn, Mass.
United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
UNI-WAVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
Viking Industries, Inc., 21343 Roscoe Blvd., Canoga Park, Calif.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
Waltham Screw Co., Waltham, Mass.
Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.
Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.

METAL PARTS—Small Metal Stampings

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 644.
Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
Accurate Spring Mfg. Co., 3811 W. Lake St., Chicago, Ill.
Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
Admiral Tool & Mfg. Co., 2354 N. Clybourn, Chicago, Ill.
Aerolite Electronics Corp., 507 26th St., Union City, N. J.
Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 554.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
Amatom Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
AMERICAN ALUMINUM CO., Sheffield St.,-C, Mountaine, N. J. ADV. PG. 604.
American Brass Co., 414 Meadow St., Waterbury 20, Conn.
American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
Anti-Corrosive Products Co., Castleton-on-Hudson, N. Y.
Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
ATLAS E-E CORP., 47 Prospect St., Woburn, Mass. ADV. PG. 562.
Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
AUTOMATIC COIL CO., 415 Bedford Ave., Brooklyn, N. Y. ADV. PG. 675.
Automatic Processing Corp., 1335 N. Wells St., Chicago, Ill.
Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
BALTIMETAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 501.
BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 311.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 311.
Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
Bennett Mfg. Co., Alden, N. Y.
Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.
Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
Carroll Pressed Metal Co., 133 Dewey St., Worcester, Mass.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 605.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.
Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
Croname, Inc., 1747 Grace St., Chicago 13, Ill.
Dolfin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.
Eastern Specialty Co., Philadelphia 40, Pa.
Eastern Tool & Mfg. Co., 1 Montgomery St., Belleville 9, N. J.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
Ellis & Sons Inc., George D., 4002 N. American St., Philadelphia 40, Pa.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Eltran Corp., St. Anne, Ill.
Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.

ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 609.
ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
Federal Tool & Mfg. Co., 3600 Alabama Ave., Minneapolis 16, Minn.
Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.
Gemex Corp., The, Industrial Products Div., 1200 Commerce Ave., Union, N. J.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 538.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
GENERAL ELECTRIC CO., SPECIALTY ELECTRONICS COMPONENTS DEPT., W. Genesee St., Auburn, N. Y. ADV. PG. 18.
GENERAL FINDINGS & SUPPLY CO., INDUSTRIAL DIV., Attleboro, Mass. ADV. PG. 327.
GIBSON CO., WILLIAM D., THE, 1800 Claybourn Ave., Chicago 14, Ill. ADV. PG. 311.
Gleason-Avery Co., Auburn, N. Y.
Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.
GREAT EASTERN METAL PRODUCTS CO., 22 Woodworth Ave., Yonkers, N. Y. ADV. PG. 696.
HK METAL CRAFT MFG. CORP., 3775 Tenth Ave., New York 34, N. Y. ADV. PG. 630.
Harper Co., H. M., The, 8200 Lehigh Ave., Morton Grove, Ill.
Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
Heldor Mfg. Corp., 238 Lewis St., Paterson, N. J.
Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
HEYMAN MFG. CO., Kenilworth 2, N. J. ADV. PG. 597.
Hobson Bros., 4940 W. Lawrence Ave., Chicago 30, Ill.
HUDSON TOOL & DIE CO., INC., 118 S. 14th St., Newark, N. J. ADV. PG. 185.
I. E. Manufacturing, 325 N. Hoynes Ave., Chicago 12, Ill.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 693.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 86, 87.
KAUPP & SONS, C. B., 32 Newark Way, Maplewood, N. J. ADV. PG. 275.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
King Laboratories, Inc., 127 Solar St., Syracuse 3, N. Y.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
Kling Metal Spinning Co., 247 Centre St., New York 13, N. Y.
Kolton Electric Mfg. Co., 123 New Jersey Railroad Ave., Newark 5, N. J.
LEYSE ALUMINUM CO., Kewaunee, Wis. ADV. PG. 452.
MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. ADV. PG. 252.
Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.
METHODE MFG. CORP., 2021 W. Churchill St., Chicago 47, Ill. ADV. PG. 204.
Mid-West Conveyor Co., Inc., Metal Products Div., 7th & Sunshine Rd., Fairfax District, Kansas City, Kan.
Mid-West Spring Mfg. Co., Mentone, Ind.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wisc. ADV. PG. 311.
Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
Mobil Electronics Mfg. Co., 1111 State Rd., 67 E, Anderson, Ind.
Mohawk Mfg. Co., Middletown, Conn.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.
NATIONAL TEL-TRONICS CORP., 35 St. Casimir Ave., Yonkers, N. Y. ADV. PG. 642.
Newcomb Spring Corp., The, 177 E. Hawthorne Ave., Valley Stream, N. Y.
Northern Metal Products Co., 9597 W. Grand Ave., Franklin Park, Ill.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 311.
Olin Mathieson Chemical Corp., 460 Park Ave., New York 22, N. Y.
Olympic Metal Products Co., Inc., Third Ave., Alpha, N. J.
Paul & Beekman Inc., 1801 Cortland St., Philadelphia 40, Pa.
PATTON-MACGUYER CO., 17 Virginia Ave., Providence 5, R. I. ADV. PG. 590.
Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
Pfeifer Products, 3901 W. 54th St., Los Angeles 43, Calif.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 670.
Polan Industries Inc., P. O. Box 1720, Huntington, W. Va.

Quadrige Mfg. Co., 213 W. Grand Ave., Chicago 10, Ill.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 311.
 Reliable Spring & Wire Forms Co., Fulton Rd. & Paris Ave., Cleveland 9, Ohio.
 Repath Pacific Div. of Arnold Engineering Co., 641 E. 61st St., Los Angeles 1, Calif.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
 Scovill Manufacturing Co., Waterbury 20, Conn.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 311.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
 Sinclair Mfg. Co., Chartley, Mass.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Soldering Specialties Co., 18 Chatham Rd., Summit, N. J.
 South River Metal Products Co., 377-379 Turnpike, South River, N. J.
 Standard Locknut & Lockwasher Inc., 2250 Valley Ave., Indianapolis 18, Ind.
 Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
 Stanley-Judd Div. of Stanley Works, Wallingford, Conn.
 Stanley Pressed Metal Div. of The Stanley Works, New Britain, Conn.
STAR EXPANSION PRODUCTS CO., INC., 142 Liberty St., New York 6, N. Y. ADV. PG. 588.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
 Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia 32, Pa.
 Stelnen Co., William, 43 Breun St., Newark 5, N. J.
 Stevens-Walden, Inc., 475 Shrewsbury St., Worcester 4, Mass.
 Stewart Stamping Co., 630 Central Park Ave., Yonkers 4, N. Y.
 Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brooklyn 5, N. Y.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W. Woodside 77, N. Y.
 Thomas & Sons, Inc., Willam, Slocum Ave., Ridgefield, N. J.
 Tinnerman Products, Inc., P. O. Box 6688, Dept. No. 16, Cleveland 1, Ohio.
 Titchener & Co., E. H., 67 Clinton St., Binghamton, N. Y.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
UNITED-CARR FASTENER CORP., Cambridge 42, Mass. ADV. PG. 64.
 United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.
 United Shoe Machinery Corp., 140 Federal St., Boston 7, Mass.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 103.
 Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
 Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.
 Warren Plastics Corp., Warren, Pa.
 Waterbury Companies, Inc., Waterbury 20, Conn.
 Waterbury Pressed Metal Co., P-M Nut Div., 300 Chase Ave., Waterbury 16, Conn.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Winzeler Mfg. & Tool Co., 1716 W. Arcade Place, Chicago 12, Ill.
 Worcester Pressed Aluminum Corp., 13-15 Hope Ave., Worcester, Mass.
 Wrought Washer Mfg. Co., 2264 S. Bay St., Milwaukee 7, Wis.
ZELL PRODUCTS CORP., 276-280 Main St., Norwalk, Conn. ADV. PG. 622, 623.
ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 634.
ZIERICK MFG. CORP., Beechwood & Rockdale Aves., New Rochelle, N. Y. ADV. PG. 605.

METAL PARTS—Spinnings

Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
 Amatam Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
AMERICAN ALUMINUM CO., Sheffield St., -C, Mountaine, N. J. ADV. PG. 604.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.

Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
KAUPP & SONS, C. B., 32 Newark Way, Maplewood, N. J. ADV. PG. 275.
 Kling Metal Spinning Co., 247 Centre St., New York 13, N. Y.
LEYSE ALUMINUM CO., Kewaunee, Wis. ADV. PG. 452.
 Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
 Teiner Co., Inc., Roland, 134 Tremont St., Everett 49, Mass.
 Teiner Engineering Corp., 116 Madison St., Malden, Mass.
ZELL PRODUCTS CORP., 276-280 Main St., Norwalk, Conn. ADV. PG. 622, 623.

METAL PARTS—Trimmings

Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Croname, Inc., 1747 Grace St., Chicago 13, Ill.
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
LEYSE ALUMINUM CO., Kewaunee, Wis. ADV. PG. 452.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
NATIONAL TEL-TRONICS CORP., 35 St. Caspary Ave., Yonkers, N. Y. ADV. PG. 642.
 Scovill Manufacturing Co., Waterbury 20, Conn.

METALLIC OXIDE

See RECTIFIERS

METALS, ALLOYS, METALLIC OXIDES & COMPOUNDS**Alnico**

ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 322, 323.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Cannon-Muskegon Corp., 2875 Lincoln St., Muskegon, Mich.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
GENERAL ELECTRIC CO., MAGNETIC MATERIALS SECTION, 7780 Neff Rd., Edmore, Mich. ADV. PG. 16, 17.
PERMAG CORP., 214 Taaffe Place, Brooklyn 5, N. Y. ADV. PG. 661.
 Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.
 Trent Tube Co., East Troy, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

Aluminum

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
 Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
 Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
 American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
 Federated Metals Div. American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
 Mallinckrodt Chemical Works, Second and Mallinckrodt Sts., St. Louis 7, Mo.
 Olin Mathieson Chemical Corp., 460 Park Ave., New York 22, N. Y.
 Precision Tube Co., Inc., North Wales, Pa.
 Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
 Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky.
 Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Antimony

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
 Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
 Barium & Chemicals, Inc., Willoughby, Ohio.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Federated Metals Div. American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.

Indium Corp. of America, 1676 Lincoln Ave., Utica 4, N. Y.
 Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
 Metal & Thermit Corp., Rahway, N. J.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Barium Compounds

Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
 Barium & Chemicals, Inc., Willoughby, Ohio.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 King Laboratories, Inc., 127 Solar St., Syracuse 3, N. Y.
 Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Beryllium and Beryllium Alloys

American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Beryllium Corp., Reading, Pa.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Brush Beryllium Co., Inc., 4301 Perkins Ave., Cleveland 3, Ohio.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
 Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
 Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Boron

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
 Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Norton Co., 1 New Bond St., Worcester 6, Mass.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Brass and Bronze

American Brass Co., 414 Meadow St., Waterbury 20, Conn.
 American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
 Bristol Brass Co., 580 Broad St., Bristol, Conn.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 Olin Mathieson Chemical Corp., 460 Park Ave., New York 22, N. Y.
 Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
 Phosphor Bronze Corp., 25 Franklin St., Seymour, Conn.
 Precision Tube Co., Inc., North Wales, Pa.
 Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.
 Titan Metal Mfg. Co., Bellefonte, Pa.
 United Wire & Supply Corp., Providence 7, R. I.
 Utility Brass & Copper Corp., 255 Conover St., Brooklyn 31, N. Y.

Cadmium

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
 Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
AMERICAN METAL CO., LTD., 61 Broadway, New York 6, N. Y. ADV. PG. 496.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
HARMON, LICHTENSTEIN & CO., 26 Broadway, New York 4, N. Y. ADV. PG. 661.

Indium Corp. of America, 1676 Lincoln Ave., Utica 4, N. Y.
Johnson Mfg. Co., Inc., Mount Vernon, Iowa.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
WILSON CO., H. A., THE, 2655 U. S. Hwy. 22, Union, N. J. ADV. PG. 257.

Cerium

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Delta Chemical Works, 21 W. 60th St., New York, N. Y.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
New Process Metals, Inc., 45-65 Manufacturers Place, Newark 5, N. J.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Rare Earths, Inc., Box 488, Pompton Plains, N. J.

Cesium Compounds

(For Photo-Tubes)
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Dow Chemical Co., Midland, Mich.
Foot Mineral Co., 18 W. Chelton Ave., Philadelphia 44, Pa.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
United Mineral & Chemical Corp., 16 Hudson St., New York 3, N. Y.

Chromium

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
Metal & Thermit Corp., Rahway, N. J.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
Trent Tube Co., East Troy, N. Y.

Cobalt

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Cannon-Muskegon Corp., 2875 Lincoln St., Muskegon, Mich.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Coefficient Metals

Alloy Metal Wire Div. of H. K. Porter Co., Inc., Prospect Park, Pa.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Carpenter Steel Co., 142 W. Bern St., Reading, Pa.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 429.
Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

Columbium

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
Murex Ltd., Rainham, Essex, England.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

Copper

American Brass Co., 414 Meadow St., Waterbury 20, Conn.
AMERICAN METAL CO., LTD., 61 Broadway, New York 6, N. Y. ADV. PG. 496.
American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
Attleboro Refining Co., Inc., Attleboro, Mass.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
Bristol Brass Co., 580 Broad St., Bristol, Conn.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.

General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
Precision Tube Co., Inc., North Wales, Pa.
Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
Somers Brass Co., 94 Baldwin St., Waterbury, Conn.
United Wire & Supply Corp., Providence 7, R. I.
Utility Brass & Copper Corp., 255 Conover St., Brooklyn 31, N. Y.

Electric Sheets—See Steel, Electric

Foil-Aluminum, Tin or Lead

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
Division Lead Co., 7742 W. 61st Place, Summit, Ill.
Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
Indium Corp. of America, 1676 Lincoln Ave., Utica 4, N. Y.
Johnston Foil Mfg. Co., 6100 S. Broadway, St. Louis 11, Mo.
Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
National Lead Co., 111 Broadway, New York 6, N. Y.
REPUBLIC FOIL & METAL MILLS, INC., 55 Triangle St., Danbury, Conn. ADV. PG. 416.
Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
United Mineral & Chemical Corp., 16 Hudson St., New York 3, N. Y.

Germanium

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
AMERICAN METAL CO., LTD., 61 Broadway, New York 6, N. Y. ADV. PG. 496.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
HARMON, LICHENSTEIN & CO., 26 Broadway, New York 4, N. Y. ADV. PG. 661.
Indium Corp. of America, 1676 Lincoln Ave., Utica 4, N. Y.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

Gold and Gold Alloys

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
AMERICAN METAL CO., LTD., 61 Broadway, New York 6, N. Y. ADV. PG. 496.
American Platinum Works, N. J. R. R. Ave. at Oliver St., Newark 5, N. J.
American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
Attleboro Refining Co., Inc., Attleboro, Mass.
BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
Bishop & Co., J., Platinum Works, Malvern, Pa.
BRAININ CO., C. S., 320 Washington St., Mt. Vernon, N. Y. ADV. PG. 601.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 627.
Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 328.
Improved Seamless Wire Co., 775 Eddy St., Providence 5, R. I.
Indium Corp. of America, 1676 Lincoln Ave., Utica 4, N. Y.
Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.

MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Metz Refining Co., 369 Mulberry St., Newark 2, N. J.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 558.
Pease & Curran Inc., 780 Allens Ave., Providence, R. I.
Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
SEL-REX CORP., PRECIOUS METALS DIV., 75 River Rd., Nutley 10, N. J. ADV. PG. 585.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
TECHNIC, INC., P. O. Box 965, Providence 1, R. I. ADV. PG. 477.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
WESTERN GOLD & PLATINUM CO., 589 Bryant St., San Francisco, Calif. ADV. PG. 593.
Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

High Permeability Alloys

American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Cannon-Muskegon Corp., 2885 Lincoln St., Muskegon, Mich.
Carpenter Steel Co., The, 142 W. Bern St., Reading, Pa.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 429.
Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
Trent Tube Co., East Troy, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

Indium

Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Cerro De Pasco Sales Corp., 300 Park Ave., New York 22, N. Y.
COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 627.
Cominco, Metal Sales Div., 215 St. James St., W., Montreal, Canada.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
Indium Corp. of America, 1676 Lincoln Ave., Utica 4, N. Y.
United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
WESTERN GOLD & PLATINUM CO., 589 Bryant St., San Francisco, Calif. ADV. PG. 593.

Laminated

Alloy Metal Wire Div. of H. K. Porter Co., Inc., Prospect Park, Pa.
American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Utility Brass & Copper Corp., 255 Conover St., Brooklyn 31, N. Y.

Lead

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
AMERICAN METAL CO., LTD., 61 Broadway, New York 6, N. Y. ADV. PG. 496.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
Bar-Ray Products, Inc., 209-25th St., Brooklyn 32, N. Y.
Division Lead Co., 7742 W. 61st Place, Summit, Ill.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
HARMON, LICHENSTEIN & CO., 26 Broadway, New York 4, N. Y. ADV. PG. 661.
Indium Corp. of America, 1676 Lincoln Ave., Utica 4, N. Y.

Johnson Mfg. Co., Inc., Mount Vernon, Iowa.
National Lead Co., 111 Broadway, New York 6, N. Y.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.

Lithium Compounds (for cathode tube screen setting)

Barium & Chemicals, Inc., Willoughby, Ohio.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Foote Mineral Co., 18 W. Cheltenham Ave., Philadelphia 44, Pa.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.

Magnesium

Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Dow Chemical Co., Midland, Mich.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.

Magnesium Oxide

BAKER & ADAMSON PRODUCTS, GENERAL CHEMICAL DIV. OF ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. ADV. PG. 363.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Dow Chemical Co., Midland, Mich.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
Norton Co., 1 New Bond St., Worcester 6, Mass.

Magnetic Iron Oxide (for cores)

General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Magnetic Powders, Inc., 1000 Fairview Ave., Johnsonburg, Pa.
WILLIAMS & CO., C. K., 640 N. 13th St., Easton, Pa. ADV. PG. 318.

Magnetic Powdered

Antara Chemicals Div. of General Aniline & Film Corp., 435 Hudson St., New York 14, N. Y.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Magnetic Powders, Inc., 1000 Fairview Ave., Johnsonburg, Pa.

Magnetostriction

See Nickel & Nickel Alloys

Manganese

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
Foote Mineral Co., 18 W. Cheltenham Ave., Philadelphia 44, Pa.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.

Mercury

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
WESTERN GOLD & PLATINUM CO., 589 Bryant St., San Francisco, Calif. ADV. PG. 593.
Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

Molybdenum

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.

Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
General Electric Co., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Murex Ltd., Rainham, Essex, England.
North American Phillips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

Molybdenum Ribbon

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
CROSS CO., H., 15 Beekman St., New York 38, N. Y. ADV. PG. 660.
General Electric Co., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
Murex Ltd., Rainham, Essex, England.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.
Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.

Nickel and Nickel Alloys

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
Alloy Metal Wire Div. of H. K. Porter Co., Inc., Prospect Park, Pa.
American Silver Co., Inc., 36-37 Prince St., Flushing 54, N. Y.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Cannon-Muskegon Corp., 2885 Lincoln St., Muskegon, Mich.
Carpenter Steel Co., The, 142 W. Bern St., Reading, Pa.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 429.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Haynes Stainless Co., A Div. of Union Carbide and Carbon Corp., 725 S. Lindsay St., Kokomo, Indiana.
International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.
Metal & Thermit Corp., Rahway, N. J.
Precision Tube Co., Inc., North Wales, Pa.
Phosphor Bronze Corp., 25 Franklin St., Seymour, Conn.
Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.
Trent Tube Co., East Troy, N. Y.
Vacuum Metals Corp., Div. of Crucible Steel Co., of America, P. O. Box 977, Syracuse 1, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

Nickel Ribbon

Alloy Metal Wire, Div. of H. K. Porter Co., Inc., Prospect Park, Pa.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 429.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
Secor Metals Corp., 7 Intervale St., White Plains, N. Y.
Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.

Palladium

AMERICAN METAL CO., LTD., 61 Broadway, New York 6, N. Y. ADV. PG. 496.
American Platinum Works, N. J. R. R. Ave. at Oliver St., Newark 5, N. J.
BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
Bishop & Co., J. Platinum Works, Malvern, Pa.
BRAININ CO., C. S., 320 Washington St., Mt. Vernon, N. Y. ADV. PG. 601.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
Derringer Metallurgical Corp., 8127 Monticello Ave., Skokie, Ill.
Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.

Gibson Electric Co., The, Box J527, Delmont, Pa.
Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Metz Refining Co., 369 Mulberry St., Newark 2, N. J.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
Pease & Curran Inc., 780 Allens Ave., Providence, R. I.
Secor Metals Corp., 7 Intervale St., White Plains, N. Y.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

Phosphor Bronze

American Brass Co., 414 Meadow St., Waterbury 20, Conn.
American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
Bristol Brass Co., 580 Broad St., Bristol, Conn.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
Phosphor Bronze Corp., 25 Franklin St., Seymour, Conn.
Precision Tube Co., Inc., North Wales, Pa.
Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
Scovill Manufacturing Co., Waterbury 20, Conn.
Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.
Utility Brass & Copper Corp., 255 Conover St., Brooklyn 31, N. Y.

Platinum

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
AMERICAN METAL CO., LTD., 61 Broadway, New York 6, N. Y. ADV. PG. 496.
American Platinum Works, N. J. R. R. Ave. at Oliver St., Newark 5, N. J.
BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
Bishop & Co., J. Platinum Works, Malvern, Pa.
BRAININ CO., C. S., 320 Washington St., Mt. Vernon, N. Y. ADV. PG. 601.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 627.
Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
Derringer Metallurgical Corp., 8127 Monticello Ave., Skokie, Ill.
Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
Goldsmith Bros. Smelting & Refining, 111 N. Wabash Ave., Chicago 2, Ill.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Metz Refining Co., 369 Mulberry St., Newark 2, N. J.
Pease & Curran Inc., 780 Allens Ave., Providence, R. I.
Secor Metals Corp., 7 Intervale St., White Plains, N. Y.
TECHNIC INC., P. O. Box 965, Providence 1, R. I. ADV. PG. 477.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
WESTERN GOLD & PLATINUM CO., 589 Bryant St., San Francisco, Calif. ADV. PG. 593.
Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

Polonium

CANADIAN RADIUM & URANIUM CORP., 630 Fifth Ave., New York 20, N. Y. ADV. PG. 665.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.

Powdered

AMERICAN METAL CO., LTD., 61 Broadway, New York 6, N. Y. ADV. PG. 496.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
Antara Chemicals Div. of General Aniline & Film Corp., 435 Hudson St., New York 14, N. Y.
Associated Engineering & Mfg. Co., Glen Ridge, N. J.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Foote Mineral Co., 18 W. Cheltenham Ave., Philadelphia 44, Pa.
Gibson Electric Co., The, Box J527, Delmont, Pa.
Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 328.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.

Metal Hydrides, Inc., Beverly, Mass.
Metz Refining Co., 369 Mulberry St., Newark 2, N. J.
NATIONAL MOLYBDE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 100.
New Jersey Zinc Co., 160 Front St., New York 38, N. Y.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
WESTERN GOLD & PLATINUM CO., 525 Harbor Blvd., Belmont, Calif. ADV. PG. 593.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
WILLIAMS & CO., C. K., 640 N. 13th St., Easton, Pa. ADV. PG. 318.

Powders, Nonmagnetic—Iron Oxide

COLUMBIAN CARBON CO., MAPICO COLOR UNIT, 380 Madison Ave., New York 17, N. Y. ADV. PG. 667.
Foote Mineral Co., 18 W. Chelton Ave., Philadelphia 44, Pa.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
WILLIAMS & CO., C. K. 640 N. 13th St., Easton, Pa. ADV. PG. 318.

Radium

CANADIAN RADIUM & URANIUM CORP., 630 Fifth Ave., New York 20, N. Y. ADV. PG. 665.
U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.

Selenium

AMERICAN METAL CO., LTD., 61 Broadway, New York 6, N. Y. ADV. PG. 496.
BAKER & ADAMSON PRODUCTS, GENERAL CHEMICAL DIV. OF ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. ADV. PG. 363.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.

Silicon

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Dow Corning Corp., Midland, Mich.
du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
Flight Research, Inc., P. O. Box 1-F, Richmond 1, Va.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

Silicon Carbide

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

Silver

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
American Platinum Works, N. J. R. R. Ave. at Oliver St., Newark 5, N. J.
American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
Attleboro Refining Co., Inc., Attleboro, Mass.
BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
BRAININ CO., C. S., 320 Washington St., Mt. Vernon, N. Y. ADV. PG. 601.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
Derringer Metallurgical Corp., 8127 Monticello Ave., Skokie, Ill.
Eastern Smelting & Refining Corp., 107-109 Brookline St., Boston 18, Mass.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Gibson Electric Co., The, Box J527, Delmont, Pa.
Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 328.
Indium Corp. of America, 1676 Lincoln Ave., Utica 4, N. Y.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Metz Refining Co., 369 Mulberry St., Newark 2, N. J.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 558.
Pease & Curran Inc., 780 Allens Ave., Providence, R. I.

SEL-REX CORP., PRECIOUS METALS DIV., 75 River Rd., Nutley 10, N. J. ADV. PG. 585.
Standard Metals Corp., Broad & Whiting Sts., North Attleboro, Mass.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
WESTERN GOLD & PLATINUM CO., 525 Harbor Blvd., Belmont, Calif. ADV. PG. 593.
Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.
WILSON CO., H. A., THE, 2655 U. S. Hwy. 22, Union, N. J. ADV. PG. 257.

Silver Alloys and Compounds

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
AMERICAN METAL CO., LTD., 61 Broadway, New York 6, N. Y. ADV. PG. 496.
American Platinum Works, N.J.R.R. Ave. at Oliver St., Newark 5, N. J.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
BAKER & CO., INC., 113 Astor St., Newark N. J. ADV. PG. 313.
BRAININ CO., C. S., 320 Washington St., Mt. Vernon, N. Y. ADV. PG. 601.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
Derringer Metallurgical Corp., 8127 Monticello Ave., Skokie, Ill.
Division Lead Co., 7742 W. 61st Place, Summit, Ill.
Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
Gibson Electric Co., The, Box J527, Delmont, Pa.
Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 328.
Improved Seamless Wire Co., 775 Eddy St., Providence 5, R. I.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
Mallinckrodt Chemical Works, Second and Mallinckrodt Sts., St. Louis 7, Mo.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Metz Refining Co., 369 Mulberry St., Newark 2, N. J.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 558.
Pease & Curran Inc., 780 Allens Ave., Providence, R. I.
SEL-REX CORP., PRECIOUS METALS DIV., 75 River Rd., Nutley 10, N. J. ADV. PG. 585.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
United Wire & Supply Corp., Providence 7, R. I.
WESTERN GOLD & PLATINUM CO., 525 Harbor Blvd., Belmont, Calif. ADV. PG. 593.
Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.
WILSON CO., H. A., THE, 2655 U. S. Hwy. 22, Union, N. J. ADV. PG. 257.

Steel

Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
Armco Steel Corp., 703 Curtis St., Middletown, Ohio.
Cannon-Muskegon Corp., 2885 Lincoln St., Muskegon, Mich.
Carpenter Steel Co., 142 W. Bern St., Reading, Pa.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.
Trent Tube Co., East Troy, N. Y.
U. S. Steel Corp., 525 William Penn Place, Pittsburgh 30, Pa.
Vacuum Metals Corp., Div. of Crucible Steel Co. of America, P. O. Box 977, Syracuse 1, N. Y.

Steel, Electric

Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
Armco Steel Corp., 703 Curtis St., Middletown, Ohio.
Cannon-Muskegon Corp., 2875 Lincoln St., Muskegon, Mich.
Carpenter Steel Co., 142 W. Bern St., Reading, Pa.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Trent Tube Co., East Troy, N. Y.
U. S. Steel Corp., 525 William Penn Place, Pittsburgh 30, Pa.

Steel, Stainless

Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
Alloy Metal Wire, Div. of H. K. Porter Co., Inc., Prospect Park, Pa.

American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
Armco Steel Corp., 703 Curtis St., Middletown, Ohio.
Cannon-Muskegon Corp., 2885 Lincoln St., Muskegon, Mich.
Carpenter Steel Co., The, 142 W. Bern St., Reading, Pa.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 429.
Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.
Trent Tube Co., East Troy, N. Y.
U. S. Steel Corp., 525 William Penn Place, Pittsburgh 30, Pa.
Vacuum Metals Corp., Div. of Crucible Steel Co. of America, P. O. Box 977, Syracuse 1, N. Y.

Strontium Compounds

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
Barium & Chemicals, Inc., Willoughby, Ohio.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Foote Mineral Co., 18 W. Chelton Ave., Philadelphia 44, Pa.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
King Laboratories Inc., 127 Solar St., Syracuse 3, N. Y.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.

Tantalum

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Murex Ltd., Rainham, Essex, England.

Tellurium

AMERICAN METAL CO., LTD., 61 Broadway, New York 6, N. Y. ADV. PG. 496.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Division Lead Co., 7742 W. 61st Place, Summit, Ill.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.

Thermostatic Bi-Metals

See BI-METALS—Thermostatic

Thorium

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
Delta Chemical Works, 21 W. 60th St., New York, N. Y.
Heavy Minerals Co., 261 Madison Ave., New York 16, N. Y.
Lindsay Chemical Co., 272 Ann St., West Chicago, Ill.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
New Process Metals, 45-65 Manufacturers Place, Newark 2, N. J.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Rare Earths, Inc., Box 488, Pompton Plains, N. J.

Tin

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
AMERICAN METAL CO., LTD., 61 Broadway, New York 6, N. Y. ADV. PG. 496.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 516.
Division Lead Co., 7742 W. 61st Place, Summit, Ill.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Indium Corp. of America, 1676 Lincoln Ave., Utica 4, N. Y.
Johnson Mfg. Co., Inc., Mount Vernon, Iowa.
Metal & Thermit Corp., Rahway, N. J.
National Lead Co., 111 Broadway, New York 6, N. Y.

Titanium

Alpha Metals, Inc., 60 Water St., Jersey City, N. J.

American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 429.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 Foote Mineral Co., 18 W. Cheltenham Ave., Philadelphia 44, Pa.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
 Metal Hydrides, Inc., Beverly, Mass.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Rem-Cru Titanium, Inc., Midland, Pa.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Trent Tube Co., East Troy, N. Y.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Tungsten

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
BAKER CHEMICAL CO., J. T., Philipsburg, N. J. ADV. PG. 516.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
 General Electric Co., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 Gibson Electric Co., The Box J527, Delmont, Pa.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
 Murex, Ltd., Rainham, Essex, England.
 North American Phillips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Tungsten Ribbon

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
CROSS CO., H., 15 Beekman St., New York 38, N. Y. ADV. PG. 660.
 General Electric Co., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.

Uranium

BAKER CHEMICAL CO., J. T., Philipsburg, N. J. ADV. PG. 516.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.

Vacuum Melted

Cannon-Muskegon Corp., 2885 Lincoln St., Muskegon, Mich.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 429.
 Vacuum Metals Corp., Div. of Crucible Steel Co. of America, P. O. Box 977, Syracuse 1, N. Y.

Zinc

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
 Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
AMERICAN METAL CO., LTD., 61 Broadway, New York 6, N. Y. ADV. PG. 496.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
BAKER CHEMICAL CO., J. T., Philipsburg, N. J. ADV. PG. 516.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
HARMON, LICHENSTEIN & CO., 26 Broadway, New York 4, N. Y. ADV. PG. 661.
 Johnson Mfg. Co., Inc., Mount Vernon, Iowa.
 Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.

National Lead Co., 111 Broadway, New York 6, N. Y.
 New Jersey Zinc Co., 160 Front St., New York 38, N. Y.

Zirconium

Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Carborundum Metals Co., The P. O. Box 32, Akron, N. Y.
 Foote Mineral Co., 18 W. Cheltenham Ave., Philadelphia 44, Pa.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Jonas Co., F., 55 W. 42nd St., New York 36, N. Y.
 Metal Hydrides, Inc., Beverly, Mass.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
 Murex, Ltd., Rainham, Essex, England.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.

METEOROLOGICAL EQUIPMENT—Electronic

Advance Instrument Corp., 1709 F. St., Belmar, N. J.
 Aeronautical Communications Equipment, Inc., 3090 S.W. 37th Ave., Miami 33, Fla.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
 Beckman & Whitley, Inc., 913 San Carlos Ave., San Carlos, Calif.
 Benson-Lehner Corp., 11930 W. Olympic Blvd., Los Angeles 64, Calif.
 Friez Instrument Division, Bendix Aviation Corp., Baltimore 4, Md.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W.C. 2, England. ADV. PG. 560.
 Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
 Victory Engineering Corp., 101 Springfield Rd., Union, N. J.

METERS—Acceleration

See **ACCELEROMETERS**

METERS—Attenuation

Admittance-Namco Corp., Farmingdale, N. Y.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
DeMORNAV-BONARDI, INC., 780 S. Aaroy Parkway, Pasadena, Calif. ADV. PG. 374, 375.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
 WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.

METERS—Cable Testing

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Borden Engineering Co. Div. of M. J. Johnson Aircraft Engineering Co., Box 10, Morristown, N. J.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Liquidometer Corp., The Skillman Ave. at 36th St., Long Island City 1, N. Y.
PESCHER ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500.
PHOTOGRAPHIC PRODUCTS, INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.
RADAR ENGINEERS, 403 E. 45th St., Seattle 5, Wash. ADV. PG. 462.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

METERS—Conductance

Bruehl & Kjaer, Naerum, Denmark.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
 Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
 Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.

METERS—Counting Rate

Airmec Ltd., High Wycombe, Buckinghamshire, England.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Bruehl & Kjaer, Naerum, Denmark.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Devtron Engineering, 1 Winslow St., Redwood City, Calif.
 Douglas Radio Labs., 176 Norfolk Ave., Boston 19, Mass.
 Electronic Products Co., 111 E. Third St., Mt. Vernon, N. Y.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
 Leighton Labs., H. W. Sunset Lane & York Rd., Hatboro, Pa.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 NRJ Instrument Co., 6425 Etzel Ave., St. Louis 14, Mo.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Nucleonic Company of America, 196 DeGraw St., Brooklyn 31, N. Y.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
 Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
 Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.
VICTOREEN INSTRUMENTS CO., COMPONENTS DIV., 5806 Hough Ave., Cleveland 3, Ohio. ADV. PG. 366.

METERS—d'Arsenval

See **Also Galvanometers**

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
BEDEE ELECTRICAL INSTRUMENT CO., INC., Penacook, N. H. ADV. PG. 626.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.
DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
 Electric Design & Mfg. Corp., Burlington, Iowa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 66.
HOYT ELECTRICAL INSTRUMENT WORKS, INC., 42 Carleton St., Cambridge 42, Mass. ADV. PG. 587.
IDEAL PRECISION METER CO., INC., 126 Greenpoint Ave., Brooklyn 22, N. Y. ADV. PG. 651.
INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 480.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
 Q.V.S. Inc., 20 N. 15th St., East Orange, N. J.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
 Roller Smith Corp., 1825 W. Market St., Bethlehem, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
 Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.
 WacLine, Inc., 35 S. St. Clair St., Dalton 2, Ohio.
WATERS MANUFACTURING, INC., Boston Post Rd., Wayland, Mass. ADV. PG. 258, 259.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Freilighuysen Ave., Newark 12, N. J.

METERS—Decibel

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BEDEE ELECTRICAL INSTRUMENT CO., INC., Penacook, N. H. ADV. PG. 626.
 Clough-Bregle Co., 6014 N. Broadway, Chicago, Ill.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
 Electric Design & Mfg. Corp., Burlington, Iowa.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.

HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 66.
HOYT ELECTRICAL INSTRUMENT WORKS, INC., 42 Carleton St., Cambridge 42, Mass. ADV. PG. 587.
INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 480.
Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
Northeast Electronics Corp., P. O. Box 425, Municipal Airport, Concord, N. H.
Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Q.V.S. Inc., 20 N. 15th St., East Orange, N. J.
Roller Smith Corp., 1825 W. Market St., Bethlehem, Pa.
Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.
WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
WATERS MANUFACTURING, INC., Boston Post Rd., Wayland, Mass. ADV. PG. 258, 259.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

METERS—Distortion and Noise

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
Bruehl & Kjaer, Naerum, Denmark.
Creative Electronics Corp., 94 Lincoln Ave., Stamford, Conn.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
DEMORNAY-BONARDI, INC., 780 S. Arroya Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
EMPIRE DEVICES PRODUCTS CORP., 38-25 Bell Blvd., Bayside 61, N. Y. ADV. PG. 388.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 94.
Northeast Electronics Corp., P. O. Box 425, Municipal Airport, Concord, N. H.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

METERS—Elapsed Time

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Cramer Controls Corp., Box 13, Centerbrook, Conn.
DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
Dynapar Corp., 5150 Church St., Skokie, Ill.
Foxboro Co., The, Foxboro, Mass.
HAYDON CO., A. W., 238 N. Elm St., Waterbury, Conn. ADV. PG. 531.
HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. ADV. PG. 157.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 506.
Ingraham Co., E., Bristol, Conn.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 503.
Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
Roller Smith Corp., 1825 W. Market St., Bethlehem, Pa.
Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

METERS—Electronic Capacitance

METERS—Field Strength

See INSTRUMENTS—Electrical Measuring

METERS—Flow, Electronic

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
Dynapar Corp., 5150 Church St., Skokie, Ill.
Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
Foxboro Co., The, Foxboro, Mass.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
Hastings-Raydist, Inc., Hampton 9, Va.
I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.
Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
Nuclear Research Corp., Southampton, Pa.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
REVERE CORP. OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
WAUGH ENGINEERING CO., 7842 Burnet Ave., Van Nuys, Calif. ADV. PG. 663.

METERS—Flutter

See METERS—Wow and Flutter

METERS—F-M Deviation

See INSTRUMENTS—Electrical Measuring

METERS—Footcandle

DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Specialties, Inc., Skunks Misery Rd., Syosset, N. Y.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

METERS—Frequency

See INSTRUMENTS—Electrical Measuring

METERS—Frequency, Microwave

See MICROWAVE ACCESSORIES

METERS—Grid Dip

Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 94.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.

METERS—Impedance

See INSTRUMENTS—Electrical Measuring

METERS—Light

Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.

SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, N. Y. ADV. PG. 733-739.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
Zoomar, Inc., Glen Cove, N. Y.

METERS—Microvolt

Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 427.
CURTISS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
DEJUR-AMSCO CORP., Northern Blvd., at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
KEITHLEY INSTRUMENTS, INC., Dept. E, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
KIN TEL (KAY LAB)., P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.

METERS—Microwave

See MICROWAVE ACCESSORIES

METERS—Modulation

See INSTRUMENTS—Electrical Measuring

METERS—Moisture, Electronic

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Delmhorst Instrument Co., 601 Cedar St., Boonton, N. J.
Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Moisture Register Co., 1510 W. Chestnut St., Alhambra, Calif.
Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

METERS—Null

METERS—Output

METERS—Panel

See INSTRUMENTS—Electrical Measuring

METERS—pH Meters, Recorders & Comparators

Analytical Measurements, Inc., 585 Main St., Chatham, N. J.
Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.
Coleman Instruments, Inc., 318 Madison St., Maywood, Ill.
Foxboro Co., The, Foxboro, Mass.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 66.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.

Philips Electronics, Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 Q.V.S. Inc., 20 N. 15th St., East Orange, N. J.
 Scientific Instruments Div., Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

METERS—Phase Angle

See INSTRUMENTS—Electrical Measuring

METERS—Photoelectric Reflection

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Gardner Lab., Inc., 4723 Elm St., Bethesda 14, Md.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
 Zoomar, Inc., Glen Cove, N. Y.

METERS—Power Factor

See INSTRUMENTS—Electrical Measuring

METERS—Power, Microwave

See MICROWAVE ACCESSORIES

METERS—Power Output

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 380, 381.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
 Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 Northeast Electronics Corp., P. O. Box 425, Municipal Airport, Concord, N. H.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

METERS—Q**METERS—RF Power**

See INSTRUMENTS—Electrical Measuring

METERS—Sound Level

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
BEEDE ELECTRICAL INSTRUMENT CO., INC., Penacook, N. H. ADV. PG. 626.
 Bruel & Kjaer, Naerum, Denmark.
 Chesapeake Instrument Corp., Shadyside, Md.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
 Melody Master Mfg. Co., 2842 N. Cicero Ave., Chicago 41, Ill.
 Northeast Electronics Corp., P. O. Box 425, Municipal Airport, Concord, N. H.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Roller Smith Corp., 1825 W. Market St., Bethlehem, Pa.
 Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
 Simpson Electric Co. Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.

Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

METERS—Standing Wave Ratio

See INSTRUMENTS—Electrical Measuring

METERS—Thermocouple

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Foxboro Co., The, Foxboro, Mass.
 Greibach Instruments Corp., An Associate of Gulton Industries, Metuchen, N. J.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 606.
 Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
 Q. V. S., Inc., 20 N. 15th St., East Orange, N. J.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
 Simpson Electric Co. Div., American Gage & Machine Co., 5218 Kinzie St., Chicago 44, Ill.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.
 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

METERS—Vibration

Advanced Electronics, Inc., 94 Silas Deane Highway, Rocky Hill, Conn.
 Bruel & Kjaer, Naerum, Denmark.
 Chesapeake Instrument Corp., Shadyside, Md.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
 Dubrow Development Co., 235 B Penn St., Burlington, N. J.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Erwood, Inc., 1770 Berteau Ave., Chicago 13, Ill.
GENERAL ELECTRIC CO. APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 International Research & Development Corp., 769 Thomas Lane, P. O. Box 1707, Cleveland 16, Ohio.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
LING ELECTRONICS, INC., 5120 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
MB MFG. CO., A DIV. OF TETRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 552.

METERS—Viscosity, Electronic

Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.

METERS—Volt-Ohm, Electronic

ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
 Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Alpha Instrument Co., 43 Hempstead St., New London, Conn.
 American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 236.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.

Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 66.
 Hycon Electronics, Inc., P. O. Bin D, Pasadena, Calif.
 Leitch Engineering Corp., 326 Lincoln St., Manchester, N. H.
 Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 94.
 Metronix, Inc., Mill Lane, Waterford, Conn.
 Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
 North Atlantic Industries, Inc., 603 Main St., Westbury, N. Y.
 Northeast Electronics Corp., P. O. Box 425, Municipal Airport, Concord, N. H.
NORTHEASTERN ENGINEERING, INC., Manchester, N. H. ADV. PG. 518, 519.
 Pameco, Mill Lane, Waterford, Conn.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Servonics, Inc., 822 N. Henry St., Alexandria, Va.
 Shasta Div. of Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif.
 Simpson Electric Co. Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
 Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.

METERS—Wave

See INSTRUMENTS—Electrical Measuring

METERS—Wow and Flutter

Amplifier Corp. of America, 396 Broadway, New York 13, N. Y.
 D & R LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. ADV. PG. 698.
DAVIES LABORATORIES DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 10721 Hanna St., Beltsville, Md. ADV. PG. 446.
 Donner Scientific Co., 888 Galindo St., Concord, Calif.
 Teletron Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.

METERS—X-Ray Intensity

See INSTRUMENTS—Electrical Measuring

MICA

See INSULATION MATERIALS

MICROMETERS**MICROFARADMMETERS**

See INSTRUMENTS—Electrical Measuring

MICROMETERS—Electronic

American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.

MICRO-MICROAMMETERS

See INSTRUMENTS—Electrical Measuring

MICRO-OHMMETERS

American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Bidde Co., James G., 1316 Arch St., Philadelphia 7, Pa.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Dice Co., J. W., Englewood, N. J.
 Greibach Instruments Corp., An Associate of Gulton Industries, Metuchen, N. J.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
 Simpson Electric Co. Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.

STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
Triplet Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

MICROPHONES—Aircraft Type

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covert.
Remler Company, 2101 Bryant St., San Francisco 10, Calif.
Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Carbon

American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
Astatic Corporation, The, Conneaut, Ohio.
Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.
Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Shure Brothers, Inc., 246 Hartrey Ave., Evanston, Ill.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
Universal Microphone Co., Box 55, Inglewood, Calif.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 514.

MICROPHONES—Condenser

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
Audio Instrument Co., Inc., 133E W. 14th St., New York 11, N. Y.
Bruel & Kjaer, Naerum, Denmark.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Capps & Co., Inc., 20 Addison Place, Valley Stream, N. Y.
Electrovert Inc., 489 Fifth Ave., New York 17, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
INTERSEARCH, INC., 7 Arcadia Place, Cincinnati 8, Ohio. ADV. PG. 480.
Omega Instrument Co., Box 495M, Pasadena, Calif.
Photocon Research Products, 421 N. Aladena Dr., Pasadena, Calif.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.
Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Contact

American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Universal Microphone Co., Box 55, Inglewood, Calif.
Webcor, Inc., Chicago, Ill.

MICROPHONES—Crystal

American Microphone Co., 370 So. Fair Oaks Ave., Pasadena 1, Calif.
Astatic Corporation, The, Conneaut, Ohio.

Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Capps & Co., Inc., 20 Addison Place, Valley Stream, N. Y.
Chesapeake Instrument Corp., Shadyside, Md.
DYNA-EMPIRE, INC., 1975 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Lesla, Via Bergamo 21, Milan, Italy.
Rye Sound Corp., 21 Rye Rd., Rye, N. Y.
Shure Brothers, Inc., 246 Hartrey Ave., Evanston, Ill.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Tibbetts Industries, Inc., Camden, Maine.
Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Dynamic

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
American Microphone Co., 370 So. Fair Oaks Ave., Pasadena 1, Calif.
Astatic Corporation, The, Conneaut, Ohio.
Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
Electrovert Inc., 489 Fifth Ave., New York 17, N. Y.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
INTERSEARCH, INC., 7 Arcadia Place, Cincinnati 8, Ohio. ADV. PG. 480.
Lesla, Via Bergamo 21, Milan, Italy.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covert.
Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
Shure Brothers, Inc., 246 Hartrey Ave., Evanston, Ill.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Telephonics Corp., Park Avenue, Huntington, N. Y.
Telex, Inc., Telex Park, St. Paul 1, Minn.
Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Magnetic

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
KNOWLES ELECTRONICS, INC., 9400 Belmont Ave., Franklin Park, Ill. ADV. PG. 178.
Lesla, Via Bergamo 21, Milan, Italy.
Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
Shure Brothers, Inc., 246 Hartrey Ave., Evanston, Ill.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
Telex, Inc., Telex Park, St. Paul 1, Minn.
Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Noise Cancelling

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
Remler Company, 2101 Bryant St., San Francisco 10, Calif.
Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.

Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
Shure Brothers, Inc., 246 Hartrey Ave., Evanston, Ill.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
Telex, Inc., Telex Park, St. Paul 1, Minn.
Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Velocity

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
Lesla, Via Bergamo 21, Milan, Italy.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covert.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Universal Microphone Co., Box 55, Inglewood, Calif.

MICROSCOPES—Electron

Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Philips Electronics, Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453 Third & Fourth Covert.

MICROWAVE ACCESSORIES Amplifiers, Microwave to Wavemeters inclusive

AMPLIFIERS—Microwave

AIRCOM INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
Alfred Electronics, 897 Commercial St., Palo Alto, Calif.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Levinthal Electronic Products, Inc., 3180 Hanover St., Stanford Industrial Park, Palo Alto, Calif.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covert.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
Telephonics Corp., Park Ave., Huntington, N. Y.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 174, 175, 411.
WAVE/PARTICLE CO., P. O. Box 252, Menlo Park, Calif. ADV. PG. 591.
White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.
Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

AMPLIFIERS—Microwave Radar

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.
APPLIED RESEARCH, INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.

BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
Telephonics Corp., Park Ave., Huntington, N. Y.

ANALYZERS—Microwave Radar

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Electronics & Avionics Div. of The Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.

ANTENNAS—Microwave

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
Admittance-Namco Corp., Farmingdale, N. Y.
AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 589.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.
American Electronic Labs, Inc., 121 N. 7th St., Philadelphia 6, Pa.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.
Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
BUDD-STANLEY CO. INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
Daimo Victor Co., Div. of Textron, Inc., 1515 Industrial Way, Belmont, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
Dielectric Products Engineering Co., Inc., Raymond, Maine.
Dorne and Margolin Inc., 30 Sylvester St., Westbury, N. Y.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
GABRIEL ELECTRONICS DIV. THE GABRIEL CO., 135 Crescent Rd., Needham Heights 94, Mass. ADV. PG. 382.
Gar Precision Parts, Inc., 703 Pacific St., Stamford, Conn.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KENNEDY & CO. D. S., Cohasset, Mass. ADV. PG. 43.
KENT CO. F. C., 64 Howard St., Irvington, N. J. ADV. PG. 634.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 574.
Maryland Electronic Mfg. Corp., College Park, Md.
Meridian, Inc., 880 Main St., Stamford, Conn.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.

Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
Production Research Corp., Thornwood, N. Y.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
SANDERS ASSOCIATES, INC., Nashua, N. H. ADV. PG. 534.
Scientific-Atlanta, Inc., 2162 Piedmont Rd., N.E., Atlanta 9, Ga.
Smith Mfg. Co., J. & H., Little Britain Rd., Newburgh, N. Y.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Stainless, Inc., Third St., North Wales, Pa.
Sterling Precision Corp., Instrument Div., 34-17 Lawrence St., Flushing 54, N. Y.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
Tower Construction Co., 2700 Hawkeye Drive, Sioux City, Iowa.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
Waveline, Inc., Box 470, Caldwell, N. J.
Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

ATTENUATORS—Microwave, Adjustable & Calibrated

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
Admittance-Namco Corp., Farmingdale, N. Y.
Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.
Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
BUDD-STANLEY CO. INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
Crowley Div. of Aerovox Corp., 1 Central Ave., West Orange, N. J.
CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 626.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
Elco Mfg. Co., 137 Herricks Rd., New Hyde Park, N. Y.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 658, 659.
Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J.
Graham Mfg. Co., Inc., 247 Bridge St., East Greenwich, R. I.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.

J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KEARFOTT CO., INC., WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Meridian, Inc., 880 Main St., Stamford, Conn.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
Metavac, Inc., 45-68 162nd St., Flushing 58, N. Y.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
Pacific Universal Products Corp., 168 Vista Ave., Pasadena 8, Calif.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 683.
Radiation, Inc., Melbourne, Fla.
Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
SANDERS ASSOCIATES, INC., Nashua, N. H. ADV. PG. 534.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
Tech Laboratories, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 535.
Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.
Transline Associates, 95 Summit St., Newark 3, N. J.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
Waveline, Inc., Box 470, Caldwell, N. J.
WEINSCHEL ENGINEERING CO. INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 42.
Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.
White Electron Devices Inc., Roger, Fourth Ave., Haskell, Ind.
Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

ATTENUATORS—Microwave Coaxial Fixed

Admittance-Namco Corp., Farmingdale, N. Y.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
Bellaire Electronics, Inc., 62 White St., Red Bank N. J.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 186, 187.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 626.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
ELECTROMATION CO., 1646 Eighteenth St., Santa Monica, Calif. ADV. PG. 692.
Electron-Radar Products, P. O. Box 50, Route No. 30, North Aurora, Ill.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 388.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.

J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
 Meridian, Inc., 880 Main St., Stamford, Conn.
 Metavac, Inc., 45-68 162nd St., Flushing 58, N. Y.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
 Pitometer Long Corp., 237 Lafayette St., New York 12, N. Y.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
 Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
 Schutter Co., Carl W., 80 E. Montauk Pkwy., Lindenhurst, N. Y.
STODDARD AIRCRAFT RADIO CO., 6644 Santa Monica Blvd Hollywood 38, Calif. ADV. PG. 498, 499.
 Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
 Telebro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
 Telewave Laboratories, Inc., 43-20 34th St., Long Island City, N. Y.
TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 535.
TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.
 Transline Associates, 95 Summit St., Newark 3, N. J.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
U. S. RUBBER CO., 1230 Avenue of the Americas, New York 20, N. Y. ADV. PG. 119.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Waveline, Inc., Box 470, Caldwell, N. J.
 WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 42.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

ATTENUATORS—Microwave Step

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Admittance-Namco Corp., Farmingdale, N. Y.
 Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
 Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 626.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
 Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y.
 Electrowert, Inc., 489 Fifth Ave., New York 17, N. Y.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Beil Blvd., Bayside 61, N. Y. ADV. PG. 388.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
 Metavac, Inc., 45-68 162nd St., Flushing 58, N. Y.
MICROLAB, 71 Okner Parkway Livingston, N. J. ADV. PG. 284.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 N. R. K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
 New London Instrument Co., P. O. Box 189, New London, Conn.
 Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
 Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
 Schutter Co., Carl W., 80 E. Montauk Pkwy., Lindenhurst, N. Y.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
STODDARD AIRCRAFT RADIO CO., 6644 Santa Monica Blvd., Hollywood 38, Calif. ADV. PG. 498, 499.

Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
 Telebro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 535.
TRAD ELECTRONICS CORP., 1001 First Ave., Asbury Park, N. J. ADV. PG. 522.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Waveline, Inc., Box 470, Caldwell, N. J.
WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 42.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

BENDS—Microwave

Admittance-Namco Corp., Farmingdale, N. Y.
 Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
 Chemalloy Electronics Corp. Gillespie Field, Santee, Calif.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
 Elco Mfg. Co., 137 Herricks Rd., New Hyde Park, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KENT CO., F. C., 64 Howard St., Irvington, N. J. ADV. PG. 634.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
 Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
SPECIALTY AUTOMATIC MACHINE CORP., 100 Gerrish Ave., Chelsea, Mass. ADV. PG. 672.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
 Waveline, Inc., Box 470, Caldwell, N. J.

CALORIMETERS—Microwave

Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195, 198.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
 WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.

CAVITIES—Microwave

Admittance-Namco Corp., Farmingdale, N. Y.
AIRCORN INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.
 Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 186, 187.
 C.G.S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
 Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 335 N. Newport Blvd., Newport Beach, Calif.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
FREQUENCY STANDARDS, INC., P. O. Box 504, Asbury Park, N. J. ADV. PG. 578.

Gar Precision Parts, Inc., 703 Pacific St., Stamford, Conn.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
 Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
 Microwave Development Labs., Inc., 92 Broad St., Babson Park 57, Mass.
 N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 683.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
 Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Warren Mfg. Co., Inc., The Newton Rd., Littleton, Mass.
 Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
 Waveline, Inc., Box 470, Caldwell, N. J.

COUPLERS—Directional

Admittance-Namco Corp., Farmingdale, N. Y.
 Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AIRCORN INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
AUTOMATIC METAL PRODUCTS CORP., 315 Berry St., Brooklyn 11, N. Y. ADV. PG. 626.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
 California Technical Industries, 1421 Old County Rd., Belmont, Calif.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
ELECTROMATION CO., 1646 Eighteenth St., Santa Monica, Calif. ADV. PG. 692.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
JONES ELECTRONICS CO., INC., M. C., 185 N. Main St., Bristol, Conn. ADV. PG. 376.
KEARFOTT CO., INC., WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
 Microwave Development Labs. Inc., 92 Broad St., Babson Park 57, Mass.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 535.
 Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.

COUPLINGS—Microwave

Admittance-Namco Corp., Farmingdale, N. Y.
 Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
 Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
FREQUENCY STANDARDS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
 Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J.
GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main St., Clifton, N. J. ADV. PG. 181.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
 Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrrove Drive, Whittier, Calif. ADV. PG. 540.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
 N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 Research Development Manufacture, Inc., 429 E. Collom St., Philadelphia 44, Pa.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
 Transline Associates, 95 Summit St., Newark 3, N. J.
 Tru-Connector Corp., 416 Union St., Lynn, Mass.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Waveline, Inc., Box 470, Caldwell, N. J.

CRYSTAL MOUNTS AND MIXERS

Admittance-Namco Corp., Farmingdale, N. Y.
 Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
 Allied Industries, Inc., 25th & Woodland Ave., Louisville 10, Ky.
AUTOMATIC METAL PRODUCTS CORP., 315 Berry St., Brooklyn 11, N. Y. ADV. PG. 626.
 British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.

DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
 Elco Mfg. Co., 137 Herricks Rd., New Hyde Park, N. Y.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
FREQUENCY STANDARDS, INC., P. O. Box 504, Asbury Park, N. J. ADV. PG. 578.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
 Javex P. O. Box 646, Redlands, Calif.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrrove Drive, Whittier, Calif. ADV. PG. 540.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
 Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 683.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
STANDARD CRYSTAL CO., 1714 Locust St., Kansas City 8, Mo. ADV. PG. 558.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 535.
TRAD ELECTRONICS CORP., 1001 First Ave., Asbury Park, N. J. ADV. PG. 522.
 Tru-Connector Corp., 416 Union St., Lynn, Mass.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Warren Plastics Corp., Warren, Pa.

DIODES—Microwave Mixer

BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 186, 187.
 Kemtron Electron Products, Inc., 5 Prince Place, Newbury Port, Mass.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 735-739.

DIVIDERS—Power

Admittance-Namco Corp., Farmingdale, N. Y.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 388.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrrove Drive, Whittier, Calif. ADV. PG. 540.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.

DUPLEXERS—Microwave

Admittance-Namco Corp., Farmingdale, N. Y.
 Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 186, 187.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.

Elco Mfg. Co., 137 Herricks Rd., New Hyde Park, N. Y.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
FREQUENCY STANDARDS, INC., P. O. Box 504, Asbury Park, N. J. ADV. PG. 578.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KEARFOTT CO., INC., WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 43.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
 Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrrove Drive, Whittier, Calif. ADV. PG. 540.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
 Microwave Development Labs., Inc., 92 Broad St., Babylon Park 57, Mass.
 N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
 Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
 Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
 Victor R. F. & Microwave Co., 36 Water St., Wakefield, Mass.
 Wavelength, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
 Waveline, Inc., Box 470, Caldwell, N. J.

FILTERS—Microwave

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Admittance-Namco Corp., Farmingdale, N. Y.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AIRCOM INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
 Allied Research & Engineering Div., Allied Record Mfg. Co., 6916 Santa Monica Blvd., Hollywood 38, Calif.
AMERAC, INC., 116 Topsfield Rd., Wrentham, Mass. ADV. PG. 412.
 American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
 Collins Radio Co., Cedar-Rapids, Iowa.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
FREQUENCY STANDARDS, INC., P. O. Box 504, Asbury Park, N. J. ADV. PG. 578.
 Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 410.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrrove Drive, Whittier, Calif. ADV. PG. 540.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.

MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
 Microwave Development Labs., Inc., 92 Broad St., Babson Park 57, Mass.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 683.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Waveline, Inc., Box 470, Caldwell, N. J.

FLANGES—Microwave

Admittance-Namco Corp., Farmingdale, N. Y.
Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
American Radar Components, Inc., Route 10, Whippany, N. J.
Connector Corp. of America, 3223 Burton Ave., Burbank, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DeMORNAV-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
Microwave Development Labs., Inc., 92 Broad St., Babson Park 57, Mass.
N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
Waveline, Inc., Box 470, Caldwell, N. J.

HORNS—Microwave

Admittance-Namco Corp., Farmingdale, N. Y.
AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 589.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
Daimo Victor Co., Div. of Tectron, Inc., 1515 Industrial Way, Belmont, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DeMORNAV-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
LEICO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 683.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 683.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
Rofan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
Terpening Co., L. H., 16 W. 61st St., New York 23, N. Y.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
Waveline, Inc., Box 470, Caldwell, N. J.

HYBRID JUNCTIONS—Microwave

Admittance-Namco Corp., Farmingdale, N. Y.
Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
ALFORD MFG. CO., INC., 299 Atlantic Ave., Boston, Mass. ADV. PG. 398.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
Gombos Co., Inc., John, 103 Montgomery St., Irvington 11, N. J.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
KEARFOTT CO., INC. WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
Meridian, Inc., 880 Main St., Stamford, Conn.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
Microwave Development Labs., Inc., 92 Broad St., Babson Park 57, Mass.
Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
SANDERS ASSOCIATES, INC., Nashua, N. H. ADV. PG. 534.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
Transline Associates, 95 Summit St., Newark 3, N. J.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Waveline, Inc., Box 470, Caldwell, N. J.

JOINTS—Rotary Microwave

Admittance-Namco Corp., Farmingdale, N. Y.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
Daimo Victor Co., Div. of Tectron, Inc., 1515 Industrial Way, Belmont, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
Gombos Co., Inc., John, 103 Montgomery St., Irvington 11, N. J.
GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif.
Litton Industries, Beverly Hills, Calif.
MAKEPEACE CO., D. E. DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
N. R. K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 683.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Waveline, Inc., Box 470, Caldwell, N. J.

LINKS—Television Microwave

Admittance-Namco Corp., Farmingdale, N. Y.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
Collins Radio Co., Cedar Rapids, Iowa.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
General Electric Co., Technical Products Dept Electronics Park, Syracuse, N. Y.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 683.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W.C. 2, England.

MARKERS—Frequency, Microwave

APPLIED RESEARCH, INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.

METERS—Frequency, Microwave

Admittance-Namco Corp., Farmingdale, N. Y.
AIRCORN INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.

AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.

BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.

BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.

COLORSTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.

Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.

DE MORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.

DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.

DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.

FREQUENCY STANDARDS, INC., P. O. Box 504, Asbury Park, N. J. ADV. PG. 578.

GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.

GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.

Gombos Co., Inc., John, 103 Montgomery St., Irvington 11, N. J.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-30.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.

Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.

KEARFOTT CO., INC., WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.

LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.

LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.

MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.

MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 522.

MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.

Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.

POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.

Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.

RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.

Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.

Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.

TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.

METERS—Microwave

Admittance-Namco Corp., Farmingdale, N. Y.

California Technical Industries, 1421 Old County Rd., Belmont, Calif.

Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.

DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.

DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.

DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

FREQUENCY STANDARDS, INC., P. O. Box 504, Asbury Park, N. J. ADV. PG. 578.

Gombos Co., Inc., John, 103 Montgomery St., Irvington 11, N. J.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.

MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.

MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.

POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.

Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.

Triplet Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.

Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.

WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.

Waveline, Inc., Box 470, Caldwell, N. J.

METERS—Power, Microwave

AIRCORP, INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.

Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.

Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.

CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 380, 381.

DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.

GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.

MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.

POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.

RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.

SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.

Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.

WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.

Waveline, Inc., Box 470, Caldwell, N. J.

MICROWAVE TRANSMISSION LINES

Admittance-Namco Corp., Farmingdale, N. Y.

Aircor Inc., 1209 E. Grand St., Elizabeth, N. J.

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.

COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.

Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.

DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.

Elco Mfg. Co., 137 Herricks Rd., New Hyde Park, N. Y.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.

Fairchild Electronics Division, 118 E. 16th St., Costa Mesa, Calif.

General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.

Gombos Co., Inc., John, 103 Montgomery St., Irvington 11, N. J.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.

LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.

Meridian, Inc., 880 Main St., Stamford, Conn.

MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.

N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.

Nevada Air Products Co., P. O. Box 2472, Reno, Nev.

Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.

Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.

Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.

Schutter Co., Carl W., 80 E. Montauk Pkwy., Lindenhurst, N. Y.

TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.

TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.

Terpening Co., L. H., 16 W. 61st St., New York 23, N. Y.

Transline Associates, 95 Summit St., Newark 3, N. J.

UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.

Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.

Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.

Waveline Inc., Box 470, Caldwell, N. J.

Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

MIXERS—Microwave

ACF Electronics, 800 N. Pitt St., Alexandria, Va.

Admittance-Namco Corp., Farmingdale, N. Y.

Aircor Inc., 1209 E. Grand St., Elizabeth, N. J.

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.

BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.

BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.

Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.

COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.

Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.

DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.

DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.

FREQUENCY STANDARDS, INC., P. O. Box 504, Asbury Park, N. J. ADV. PG. 578.

I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. 474, 475.

J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.

Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.

KEARFOTT CO., INC., WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.

MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.

MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.

MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.

Microwave Development Laboratories, Inc., 92 Broad St., Babson Park 57, Mass.

N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.

Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.

Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.

Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.

Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.

TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.

Terpening Co., L. H., 16 W. 61st St., New York 23, N. Y.

UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.

Waveline, Inc., Box 470, Caldwell, N. J.

OSCILLATORS—Microwave Power

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.

AIRCORP, INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.

AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.

California Technical Industries, 1421 Old County Rd., Belmont, Calif.

Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.

Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.

DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.

Levinthal Electronic Products, Inc., 3180 Hanover St., Stanford Industrial Park, Palo Alto, Calif.

Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.

MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.

Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.

POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.

POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.

Radiation, Inc., Melbourne, Fla.

Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.

STEWART ENGINEERING CO., Box 277, Soquel, Calif. ADV. PG. 668, 669.

VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 174, 175, 411.

Waveline, Inc., Box 470, Caldwell, N. J.

WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 42.

White Electron Devices Inc., Roger, Fourth Ave., Haskell, N. J.

PROBES—Microwave

Admittance-Namco Corp., Farmingdale, N. Y.

AIRCORP, INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.

Aircor Inc., 1209 E. Grand St., Elizabeth, N. J.

BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.

BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.

COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Gombos Co., Inc., John, 103 Montgomery St., Irvington 13, N. J.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Jowil Electronics, Inc., Bedford & Wister, Philadelphia 44, Pa.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
Tru-Connector Corp., 416 Union St., Lynn, Mass.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
Waveline, Inc., Box 470, Caldwell, N. J.

RECEIVERS—Microwave

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
Collins Radio Co., Cedar Rapids, Iowa.
Engineering Associates, 434 Patterson Rd., Dayton 9, Ohio.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
General Electric Co., Communications Products Dept., Electronics Park, Syracuse, N. Y.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
Haller, Raymond & Brown, Inc., State College, Pa.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
Production Research Corp., Thornwood, N. Y.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO ENGINEERING LABS, INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 107.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
Telephonics Corp., Park Ave., Huntington, N. Y.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

SHIFTERS—Phase, Microwave

Admittance-Namco Corp., Farmingdale, N. Y.
Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 380, 381.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
KEARFOTT CO., INC., WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 683.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
TELERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
White Electron Devices Inc., Roger, Fourth Ave., Haskell, N. J.

STANDARDS—Frequency, Microwave

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
COLORTONE ELECTRONICS INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
Norman Laboratories Ernst, Williams Bay, Wis.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
Scientific Associates, Inc., 2162 Piedmont Rd., N. E., Atlanta 9, Ga.
Scientific-Atlanta, Inc., 2162 Piedmont Rd., N. E., Atlanta 9, Ga.

STRIP TRANSMISSION LINES—Microwave

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.

SWITCHES—Microwave

Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
Electronic Specialty Co., 3121 San Fernando Rd., Los Angeles 39, Calif.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.

I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
Naybor Labs., Inc., E. V., 2 Yennico Ave., Port Washington, N. Y.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 683.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Tech Laboratories, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
Thompson Products, Inc., Electronics Div., 2196 Clarkwood Ave., Cleveland 3, Ohio.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
Warren Mfg. Co., Inc., The, Newton Rd., Littleton, Mass.
Waveline, Inc., Box 470 Caldwell, N. J.
White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TERMINATIONS—Microwave

Admittance-Namco Corp., Farmingdale, N. Y.
Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 415.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
Collins Radio Co., Cedar Rapids, Iowa.
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 658, 659.
F-R MACHINE WORKS INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Gombos Co., Inc., John, 103 Montgomery Ave., Irvington, N. J.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
Holland Electronics, 40 Great Jones St., New York 12, N. Y.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KEARFOTT CO., INC., WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
Transline Associates, 95 Summit St., Newark 3, N. J.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
U. S. RUBBER CO., 1230 Avenue of the Americas, New York 20, N. Y. ADV. PG. 119.
WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
Waveline, Inc., Box 470, Caldwell, N. J.

TESTERS—Microwave Testing Equipment

Admittance-Namco Corp., Farmingdale, N. Y.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 236.
California Technical Industries, 1421 Old County Rd., Belmont, Calif.
Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 380, 381.
Defiance Engineering & Microwave Corp., Box 488 Beverly Airport, Beverly, Mass.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 658, 659.
Engineering Associates, 434 Patterson Rd., Dayton 9, Ohio.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.
Meridian, Inc., 880 Main St., Stamford, Conn.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrrove Drive, Whittier, Calif. ADV. PG. 540.
Microtronics, Inc., Porete Ave., North Arlington, N. J.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
Pye Telecommunications, Ltd., Newmarket Rd., Cambridge, England.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Transline Associates, 95 Summit St., Newark 3, N. J.
U. S. Electronics Corp. of America, 800 Slater Lane, Alexandria, Va.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Waveline, Inc., Box 470, Caldwell, N. J.
WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 42.
White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TRANSFORMERS—Microwave

h—indicates hermetically sealed

ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 378.
Admittance-Namco Corp., Farmingdale, N. Y.
Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J. (h)
Atlas Coil, Inc., 63 Main St., Ansonia, Conn.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
Basler Electric Co., 605 Fifth St., Highland, Ill.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
Central Transformer Co., 910 W. Jackson Ave., Chicago, Ill. (h)
Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12. (h)
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KEARFOTT CO., INC., WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.
Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. (h)
MERIDIAN METALCRAFT, INC., 8739 S. Millergrrove Drive, Whittier, Calif. ADV. PG. 540.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. (h)
N.R.K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
TOROTEL, INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539.
Transline Associates, 95 Summit St., Newark 3, N. J.
Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa. (h)

TRANSMITTERS—Microwave

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AIRCORN INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
Budelman Radio Corp., 376 Fairfield Ave., Stamford, Conn.
California Technical Industries, 1421 Old County Rd., Belmont, Calif.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
Collins Radio Co., Cedar Rapids, Iowa.
Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Texas.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
Levinthal Electronic Products, Inc., 3180 Hanover St., Stanford Industrial Park, Palo Alto, Calif.
Motorola Communication & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
Pye Telecommunications, Ltd., Newmarket Rd., Cambridge, England.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO ENGINEERING LABORATORIES, INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 107.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 434.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
Telephonics Corp., Park Ave., Huntington, N. Y.
Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

TUBES—Microwave

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 186, 187.
Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.

Central Electronic Manufacturers Inc., 2 Richwood Place, Denville, N. J.
EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 128, 129.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
HUGGINS LABORATORIES, 711 Hamilton Ave., Menlo Park, Calif. ADV. PG. 320, 321.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
KENT CO., F. C., 64 Howard St., Irvington, N. J. ADV. PG. 634.
Litton Industries, Beverly Hills, Calif.
MACHLETT LABORATORIES, INC., Springdale, Conn. ADV. PG. 469.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
RED BANK DIV. BENDIX AVIATION CORP., Red Bank, N. J. ADV. PG. 332.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 174, 175, 411.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.
White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TUBES—Microwave Receiving

BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 186, 187.
EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 128, 129.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 174, 175, 411.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUNERS—Microwave

Admittance-Namco Corp., Farmingdale, N. Y.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
Collins Radio Co., Cedar Rapids, Iowa.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
DUNN ENGINEERING ASSOCIATES, INC., 186 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 695.
Engineering Associates, 434 Patterson Rd., Dayton 9, Ohio.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
FREQUENCY STANDARDS INC., P. O. Box 504, Asbury Park, N. J. ADV. PG. 578.
Gombos Co., Inc., John, 103 Montgomery St., Irvington 11, N. J.
Haller, Raymond & Brown, Inc., State College, Pa.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Meridian, Inc., 880 Main St., Stamford, Conn.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
Microtronics, Inc., Porete Ave., North Arlington, N. J.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.

POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
 Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 683.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
 Transline Associates, 95 Summit St., Newark 3, N. J.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Warren Mfg. Co., Inc., The, Newtown Rd., Littleton, Mass.
 Waveline, Inc., Box 470, Caldwell, N. J.

WAVEGUIDE TEST EQUIPMENT

Admittance-Namco Corp., Farmingdale, N. Y.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.
 Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 California Technical Industries, 1421 Old County Rd., Belmont, Calif.
 Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
 Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
 Elco Mfg. Co., 137 Herricks Rd., New Hyde Park, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Graham Mfg. Co., Inc., 247 Bridge St., East Greenwich, R. I.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
 Meridian, Inc., 880 Main St., Stamford, Conn.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 528.
 Microtronics, Inc., Porete Ave., North Arlington, N. J.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
 Microwave Development Labs., Inc., 92 Broad St., Babson Park 57, Mass.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
 Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
 Transline Associates, 95 Summit St., Newark 3, N. J.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
 Waveline, Inc., Box 470, Caldwell, N. J.

WAVEGUIDE DISSIPATIVE STRIPS

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
 Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
CORNING GLASS WORKS, CORNING, N. Y. ADV. PG. 390.
 Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.

Hansen Electronics, 7117 Santa Monica Blvd., Los Angeles 46, Calif.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
 Metavac, Inc., 45-68 162nd St., Flushing 58, N. Y.
U. S. RUBBER CO., 1230 Avenue of the Americas, New York 20, N. Y. ADV. PG. 119.

WAVEGUIDES**C-Combination Rigid & Flexible Type****F-Flexible Type****R-Rigid Type**

ACF Electronics, 800 N. Pitt St., Alexandria, Va. R
 Admittance-Namco Corp., Farmingdale, N. Y. R
 Aircom Inc., 1209 E. Grand St., Elizabeth, N. J. C-F-R
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. C-F-R
 ADV. PG. 532.
 Allied Research & Engineering Div., Allied Record Mfg. Co., 6916 Santa Monica Blvd., Hollywood 38, Calif. R
 American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md. R
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
 Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y. C-R
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
 Central Electronic Manufacturers Inc., 2 Richwood Place, Denville, N. J. R
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Co-Operative Industries, Inc., 100 Oakdale Rd., Chester, N. J. C-F
 Decade Instrument Co., Box 153, Caldwell, N. J. C-R
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass. C-F-R
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
 Elco Mfg. Co., 137 Herricks Rd., New Hyde Park, N. Y. C-F-R
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
 Gar Precision Parts, Inc., 703 Pacific St., Stamford, Conn. R
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y. C-R
 Graham Mfg. Co., Inc., 247 Bridge St., East Greenwich, R. I. R
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 43.
KENT CO., F. C., 64 Howard St., Irvington, N. J. ADV. PG. 634.
LEICO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
 Meridian, Inc., 880 Main St., Stamford, Conn. C-R
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
 Microwave Development Labs., Inc., 92 Broad St., Babson Park 57, Mass. R
 N. R. K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill. R
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev. R
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y. C-F-R
 Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y. R
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England. R
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass. C-R
 Schutter Co., Carl W., 80 E. Montauk Pkwy., Lindenhurst, N. Y. C-R
 Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass. R
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J. R
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.
TOLERAD MFG. CORP., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Transline Associates, 95 Summit St., Newark 3, N. J. R
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
 Wavelength, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif. R
 Waveline, Inc., Box 470, Caldwell, N. J. C-R

WAVEMETERS-Microwave

Admittance-Namco Corp., Farmingdale, N. Y.

AIRCON, INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
 Decade Instrument Co., Box 153, Caldwell, N. J.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
FREQUENCY STANDARDS, INC., P. O. Box 504, Asbury Park, N. J. ADV. PG. 578.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.
 Gombos Co., Inc., John, 103 Montgomery Ave., Irvington, N. J.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KEARFOTT CO., INC., WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
 Meridian, Inc., 880 Main St., Stamford, Conn.
 Microtronics, Inc., Porete Ave., North Arlington, N. J.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
 Microwave Development Labs., Inc., 92 Broad St., Babson Park 57, Mass.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
 Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
 Pennsylvania Testing Lab., Inc., Doylestown, Pa.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
 Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
RADAR DESIGN CORP., 210 Fifth Ave., New York 16, N. Y. ADV. PG. 615.
 Radiation, Inc., Melbourne, Fla.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Waveline, Inc., Box 470, Caldwell, N. J.

**MICROWAVE TRANSMISSION LINES
See MICROWAVE ACCESSORIES****MILLIAMMETERS**

See INSTRUMENTS—Electrical Measuring

MILLIONMMETERS

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Triplett Electrical Instrument Co., Harmon Road, Bluffton, Ohio.
 Videon Electronic Corp., 902 E. Michigan St., Indianapolis 2, Ind.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

MILLIVOLTMETERS

See INSTRUMENTS—Electrical Measuring

MIRRORS—Special Purpose

Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
 Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.

Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
 Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
 Keim Precision Mirrors, 1346 E. Colorado St., Glendale 5, Calif.
 Lewis Co., Inc., E. B., 11 Bragg St., East Hartford 8, Conn.
 O & S Research, Inc., 1811 Bannard St., Riverton, N. J.
 Pacific Universal Products Corp., 168 Vista Ave., Pasadena 8, Calif.
 Pittsburgh Plate Glass Co., 1 Gateway Center, Pittsburgh 22, Pa.
 Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.

MIRRORS—Television

Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
 Buhl Optical Co., 1009 Beach Ave., Pittsburgh 33, Pa.
 Keim Precision Mirrors, 1346 E. Colorado St., Glendale 5, Calif.
 Pacific Universal Products Corp., 168 Vista Ave., Pasadena 8, Calif.
 Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.

MIXERS—Microwave

See **MICROWAVE ACCESSORIES**

MIXERS—Portable

See **AMPLIFIERS—Audio Frequency**

MODULATORS—Magnetic

Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
 Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
GENERAL MAGNETICS, INC., 135 Bloomfield Ave., Bloomfield, N. J. ADV. PG. 426.
McKAY ELECTRIC CO., 19790 Stahelin Ave., Detroit 19, Mich. ADV. PG. 638.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Telephoto Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Texas Division, Brush Electronics Co., 3732 Westheimer Rd., Houston 6, Texas.
VECTROL ENGINEERING, INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.

MODULATORS—Phase

BRADLEY LABS., INC., 170 G. Columbus Ave., New Haven 11, Conn. ADV. PG. 260.
 Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Telephoto Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
VECTROL ENGINEERING, INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.

MODULATORS—Pulse

Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.
 Applied Radiation Corp., 1210 Spring Brook Rd., Walnut Creek, Calif.
BRADLEY LABS., INC., 170 G. Columbus Ave., New Haven 11, Conn. ADV. PG. 260.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
 Creative Electronics Corp., 94 Lincoln Ave., Stamford, Conn.
 Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
NUE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 369, 370.

NORTHEAST SCIENTIFIC CORP., 617 Concord Ave., Cambridge 38, Mass. ADV. PG. 641.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
SANDERS ASSOCIATES, INC., Nashua, N. H. ADV. PG. 534.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Telephoto Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

MODULES

See **CIRCUITS—PRINTED**

MOISTURE

See **INDICATORS**

MOLDERS OF PLASTIC MATERIALS

See **INSULATION PARTS**

Plastic Insulation Parts—Molded

MONITORS—AM-FM Transmitter

BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 Collins Radio Co., Cedar Rapids, Iowa.
 Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.

MONITORS—Frequency

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Barker & Williamson, 235 Fairfield Av., Upper Darby, Pa.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Collins Radio Co., Cedar Rapids, Iowa.
 Electric Regulator Corp., Pearl St., Norwalk, Conn.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 658, 659.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Gates Radio Co., Quincy, Ill.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 200-202.
POTTER AERONAUTICAL CORP., Route No. 22, Union, N. J. ADV. PG. 372, 373.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.

MONITORS—Modulation

BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
 Collins Radio Co., Cedar Rapids, Iowa.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Gosnet Co., 801 S. Main St., Burbank, Calif.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
LAMPKIN LABORATORIES, INC., Bradenton 1, Fla. ADV. PG. 623.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.

MONITORS—Phase

ADVANCE ELECTRONICS LAB., INC., 249-259 Terhune Ave., Passaic, N. J. ADV. PG. 420.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
 Maryland Electronic Mfg. Corp., College Park, Md.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Nems-Clarke, Inc., Silver Springs, Md.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

MONITORS—Shift

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 200-202.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

MONITORS—Television, Transmitter

Cinema-Television, Ltd., Worsley Bridge Rd., London SE 26, England.
 Dage Television Div., Thompson Products, Inc., W. 10th St., Michigan City, Ind.
 Diamond Power Specialty Corp., Electronics Dept., Lancaster, Ohio.
 DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
 Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Setchell Carlson, Inc., 330 Fifth Ave., New Brighton, Minn.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
 Wickes Engineering & Construction Co., P. O. Box 590, Camden 1, N. J.

MOTOR CONTROLS AC

See **CONTROLS—Electronic AC Motor Speed**

MOTORS

1. Fractional hp
2. Gear
3. Phonograph
4. Remote Control
5. Servo
6. Speed Regulation
7. Synchronous
8. Timing

Aerolab Development Co., 330 W. Holly St., Pasadena, Calif. 1-2-5-7.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J. 1.
 Airborne, Inc., 4868 N. Clark, Chicago 40, Ill. 1-2.
AIR-MARINE MOTORS, INC., 365 Bayview Ave., Amityville, N. Y. 1-2-7. ADV. PG. 569.
 Allis-Chalmers Mfg. Co., 935 S. 70th St., Milwaukee 1, Wis. 7.
 American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif. 1-2-5-7.
 Amglo Corp., 4333 N. Ravenswood Ave., Chicago 19, Ill. 8.
 Ashland Electric Products, Inc., 32-02 Queens Blvd., Long Island City 1, N. Y. 1-2-3-7.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. 1-2-3-5-7. ADV. PG. 430.
 Basler Electric Co., 605 Fifth St., Highland, Ill. 5.
 Bekey Electric Co., Inc., 1327 S. Main St., Los Angeles 15, Calif. 1-4-5-6-7.

Bendix Aviation Corp., Montrose Div., South Montrose, Pa. 1.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif. 1-4-5.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y. 5.
 Bodine Electric Co., Ohio St. & Oakley Blvd., Chicago 12, Ill. 1-2-3-4-5-6-7-8.
BORG EQUIPMENT DIV., THE GEORGE W. BORG CORP., Janesville, Wis. 1-2-7. ADV. PG. 142.
 Borg-Warner Corp., Pesco Products Div., 24700 North Miles Rd., Bedford, Ohio. 1-2.
 Brevil Products Corp., 601 W. 26th St., New York 1, N. Y. 1-2.
 Bristol Co., The P. O. Box 1790 EBG, Waterbury 20, Conn. 5.
 Bristol Motor Division, Vocaline Company of America, Inc., Old Saybrook, Conn. 7-8.
 Carron Mfg. Co., 415 S. Aberdeen Ave., Chicago, Ill. 1-2-3-4.
 Cedar Engineering, Inc., 5806 W. 36th St., Minneapolis 16, Minn. 5-7.
CELCO, Island Ave., Mahwah, N. J. 1-5-7. ADV. PG. 138, 139.
 Century Electric Co., 1806 Pine St., St. Louis 3, Mo. 1-2-7.
CHASE ELECTRONICS INC., 82-31 51st Ave., Elmhurst, N. Y. 1-2-3-4-5-6-7-8. ADV. PG. 601.
CLIFTON PRECISION PRODUCTS CO., INC., Broadway at Marple Ave., Clifton Heights, Pa. 5. ADV. PG. 134, 135.
CONTINENTAL ELECTRIC CO., INC., 334 Ferry St., Newark 5, N. J. 1-7. ADV. PG. 557.
 Cramer Controls Corp., Box 13, Centerbrook, Conn. 7-8.
 Dalmotor Co., 1375 Clay St., Santa Barbara, Calif. 1-2-5-6-7.
 Diehl Manufacturing Co., Somerville, N. J. 1-2-4-5-6.
EASTERN AIR DEVICES, INC., 385 Central Ave., Dover, N. H. 1-2-3-4-5-6-7-8. ADV. PG. 312.
ECLIPSE PIONEER DIV. BENDIX AVIATION CORP., Teterboro, N. J. 5. ADV. PG. 333-336.
EDISON INDUSTRIES, THOMAS A. INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. 5. ADV. PG. 144-146.
 Elcor, Inc., 4235 W. North Ave., Chicago 39, Ill.
 Electric Auto-Lite Co., The, Champlain St., Toledo 1, Ohio.
 Electric Indicator Co., Inc., Camp Avenue, Springdale, Conn. 1-5-6-7.
 Electric Motor & Specialties, Inc., King & Hamscher Sts., Garrett, Ind. 1.
ELECTRIC SPECIALTY CO., 300 South St., Stamford, Conn. 5-7. ADV. PG. 490.
ELECTRO AIRE DIV., HYDRO AIRE, INC., 6909 Farmdale Ave., North Hollywood, Calif. 1-2-6-7. ADV. PG. 510.
 Electric Engineering Products Co., 609 W. Lake St., Chicago, Ill. 1-2.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis, Mo. 1.
 El Ray Motor Co., Inc., 11747 Vose St., North Hollywood, Calif. 1-2-8.
 Fairchild Camera & Instrument Corp., Electrical Products Div., 110 Main St., Burlington, Vt. 1-5-7.
 Fairchild Electrical Products Division, 110 Main St., Burlington, Vt. 1-2-5-7.
 Fasco Industries, Inc., Rochester 2, N. Y. 1-6.
 Foote Brothers Gear & Machine Corp., 4545 S. Western Blvd., Chicago 9, Ill. 2.
 Ford Instrument Co., Div. of Sperry Rand Corp., 31-10 Thomson Ave., Long Island City 1, N. Y. 5.
 G-M Laboratories, Inc., 4336 N. Knox Ave., Chicago, Ill. 5-7.
GENERAL CONTROLS CO., Glendale 1, Calif. 1-4-5. ADV. PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 1-2-3-5-6-7-8-12. ADV. PG. 1-12.
 General Industries Co., Taylor & Olive Sts., Elyria, Ohio. 1-3.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. 6. ADV. PG. 316, 317.
 Gleason-Avery Co., Auburn, N. Y. 1-2-3-7-8.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio. 1-2-4-5-6-7-8.
 Grant Gear Works, Inc., 154 W. Second St., South Boston, Mass. 2.
GREENLEAF MFG. CO., THE, 7814 Maplewood Industrial Court, St. Louis 17, Mo. 5. ADV. PG. 219.
 Hagen Mfg. Co., Inc., 207 20th St., Moline, Ill. 8.
 Hansen Mfg. Co., Inc., Princeton, Ind. 7-8.
HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury, Conn. 6-7-8. ADV. PG. 531.
HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. 7-8. ADV. PG. 157.
HEINZE ELECTRIC CORP., 685 Lawrence St., Lowell, Mass. 1-2. ADV. PG. 657.
 Helpot Corp., Newport, Calif. 5.
 Hertner Electric Co., 12690 Elmwood Ave., Cleveland 11, Ohio. 1-2-7.
 Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Armory St., Boston 19, Mass. 1-2-5-7-8.
 Hoover Electric Co., 2100 S. Stoner Ave., Los Angeles 25, Calif. 1-2-5-7.
 Howard Industries, Inc., Divisions: Cyclohm Motor Corp.; Electric Motor Corp., Racine, Wis. 1-2-5-6-7-8.
INDUCTION MOTORS CORP., 570 Main St., Westbury, N. Y. 1-2-3-5-6-7. ADV. PG. 266.
 Ingraham Co., E., Bristol, Conn. 7-8.
INTERSEARCH, INC., 7 Arcadia Place, Cincinnati 8, Ohio. 1-3. ADV. PG. 480.

Iron Fireman Mfg. Co., Electronics Div., 2838 S. E. 9th Ave., Portland 2, Ore. 1.
 Jack & Heintz, Inc., Cleveland 1, Ohio. 1.
 Janette Electric Mfg. Co., Morton Grove, Ill. 2.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. 4-5-7. ADV. PG. 181.
 Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England. 1-5-6-7.
 Koltsman Instrument Corp., Sub of Standard Coil Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y. 2-5-7.
 L & R Mfg. Co., 580 Elm St., Arlington, N. J. 1.
 Leach Corp., Inet-Palmer Div., 4441-43 S. Santa Fe Ave., Los Angeles 58, Calif. 7.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif. 1-2-5-6-7.
 Leland Electric Co., Div. of The American Machine & Foundry Co., 1501 Webster St., Dayton 1, Ohio. 1.
 Lesa, Via Bergamo 21, Milan, Italy. 1-2-3-7.
MACARR, INC., 2543 Boston Rd., Bronx 67, N. Y. 2-6-8-9. ADV. PG. 640.
 Master Appliance Mfg. Co., Fourth & Ontario Sts., Racine, Wis. 1-3.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgeway Rd., Minneapolis 13, Minn. 1-5-7.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. 5-7. ADV. PG. 447.
 Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N. Hopkins, Minn. 5.
 Motordyne Inc., 2661 S. Myrtle Ave., Monrovia, Calif. 1-2-6.
 Motoresearch Co., 1600 Junction Ave., Racine, Wis. 1-2.
 Muirhead & Co., Ltd., Beckenham, Kent, England. 5-7.
 Nemeth, Inc., 2223 S. Carmelina Ave., Los Angeles 64, Calif. 5-6-8.
 Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn. 2-4-5.
OSTER MFG. CO., JOHN AVIONICS DIV., 1 N. Main St., Racine, Wis. 1-2-4-5-6-7-8. ADV. PG. 130.
 P I C Design Corp., 477 Atlantic Ave., East Rockaway, N. Y. 5.
 Rae Motor Corp., P. O. Box 269, Racine, Wis. 1-2-3-6.
 Redmond Co., Inc., Owosso, Mich. 1-3.
 Reed-Curtis Nuclear Industries, Inc., 9459 N. Jefferson Blvd., Culver City, Calif. 5.
 Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa. 1.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill. 1-7.
 Robbins & Myers, Inc., 1345 Lagonda Ave., Springfield 99, Ohio. 1.
 Rotating Components, Inc., 269 Green St., Brooklyn 22, N. Y. 1-2-5-7.
 Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill. 1-7-8.
 Scruggs Co., Loyd, P. O. Drawer 232, Festus, Mo. 1-2.
SERVO MECHANISMS, INC., MECHATROL DIV., 625 Main St., Westbury, N. Y. 1-2-4-5-7-8. ADV. PG. 25.
 Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. J. 1-2-4-5-6-8.
 Sessions Clock Co., Industrial Products Div., Forestville, Conn. 7-8.
 Small Motors, Inc., 2076 Elston Ave., Chicago 14, Ill. 1-2-5-6-7.
 Speedway Mfg. Co., 1834 S. 52nd Ave., Cicero 50, Ill. 1-2.
 Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill. 1-4-5-7-8.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y. 1-6.
 Syntorque, Inc., 601 W. 26th St., New York 1, N. Y. 1-5-7.
 Technical Electronics Corp., 4060 Ince Blvd., Culver City, Calif. 7.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. 1-2-5.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. 7. ADV. PG. 468.
TRANSICOIL CORP., Worcester, Penna. 2-5. ADV. PG. 324.
 United Pressed Products Co., 741 W. Harrison St., Chicago 7, Ill. 1-2-3-4-6.
 Universal Electric Co., 300 E. Main St., Owosso, Mich. 1-3.
VECTROL ENGINEERING, INC., P. O. Box 1089, Stamford, Conn. 6. ADV. PG. 632.
 WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio. 1-4-5-6.
 Waco, Inc., 2032 Broadway, Santa Monica, Calif. 1-2-7.
 Wagner Electric Corp., 6400 Plymouth Ave., St. Louis 14, Mo. 1.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y. 1-5-7-8.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif. 1-2-4.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. 1-7. ADV. PG. 205-216.
 White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo. 1-5.
 Wincharger Corp., E Seventh & Division Sts., Sioux City, Iowa. 1.

MOUNTINGS

See also BASES

MOUNTINGS—Vibration and Shock

American Felt Co., Glenville, Conn.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.

BARRY CONTROLS, INC., 711 Pleasant St., Watertown 72, Mass. ADV. PG. 49.
 Boston Felt Co., 210 South St., Boston 11, Mass.
 Chicago Die Mold Div. of U. S. Rubber Co., 4300 New Haven Ave., Fort Wayne 4, Ind.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 605.
 Cutler Metal Products Co., 1025 Line St., Camden, N. J.
 Federal Shock Mount Corp., 1060 Washington Ave., New York 56, N. Y.
FINN & CO., INC., T. R., 200 Central Ave., Hawthorne, N. J. ADV. PG. 575.
 General Tire & Rubber Co., The, Akron, Ohio.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
 Lord Mfg. Co., 1635 W. 12th St., Erie, Pa.
MB MFG. CO., A DIV. OF TETRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 552.
MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 61.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgeway Rd., Minneapolis 13, Minn.
 Pneumafil Corp., Charlotte, N. C.
 Ray-O-Vac Co., 212 E. Washington Ave., Madison, Wis.
 Remler Company, 2101 Bryant St., San Francisco 10, Calif.
 Robinson Aviation Inc., Teterboro Air Terminal, Teterboro, N. J.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
UCINETE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 65.
 Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.

MOUNTS—Antenna

AINSLIE CORP., 312 Quincy Ave., Quincy, Mass. ADV. PG. 589.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
 Antlab, 4950 N. High St., Columbus 14, Ohio.
 Channel Master Co., Ellenville, N. Y.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DETROIT CONTROLS CORP., CONTROL ENGINEERING UNIT, 560 Providence Highway, Norwood, Mass. ADV. PG. 515.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
I-T-E CIRCUIT BREAKER CO. SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
 Kenwood Engineering Co., Inc., 265 Colfax Ave., Kenilworth, N. J.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
 Master Mobile Mounts, Inc., 1306 Bond St., Los Angeles 15, Calif.
 Modern-Aire Mfg. Co., 4436 W. Roosevelt Rd., Chicago 24, Ill.
 National Electric Products Co., 140 Stanwix St., Pittsburgh 22, Pa.
 Peterson & Neville, Inc., 365 Dorchester Ave., Boston, Mass.
 Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls, N. Y.
 Roflan Co., Corner Route 1, & Camp Meeting Rd., Topsfield, Mass.
ROHN MFG. CO., 116 Limestone, Bellevue, Peoria, Ill. ADV. PG. 525.
 South River Metal Products Co., 377-379 Turnpike, South River, N. J.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.
 Video Industries Co., 242 Madison Ave., Port Chester, N. Y.
 Walnut Machine Co., 1529 S. Walnut St., South Bend 14, Ind.
 Wind Turbine Co., E. Market St. & Penna. R.R., West Chester, Pa.

MOUNTS—Shock

See MOUNTINGS—Vibration and Shock

MOUNTS—Thermistor

Admittance-Namco Corp., Farmingdale, N. Y.
 Aircorn Inc., 1209 E. Grand St., Elizabeth, N. J.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 511.
GENERAL COMMUNICATIONS CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
 Kybernetes, Co., 9 E. 40th St., New York 16, N. Y.

Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
TELERAD MFG. Corp., 1440 Broadway, New York 18, N. Y. ADV. PG. 632.
 Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio.

MULTIMETERS

Alpha Instrument Co., 43 Hempstead St., New London, Conn.
 Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
 Dubrow Development Co., 235B Penn St., Burlington, N. J.
HEATH & CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
 Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
 Northeast Electronics Corp., P. O. Box 425, Municipal Airport, Concord, N. H.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

MULTIPLEX SYSTEMS—Frequency Division

APPLIED RESEARCH, INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 Collins Radio Co., Cedar Rapids, Iowa.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 559.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KIN TEL (KAY LAB)., P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Lynch Carrier Systems, Inc., 695 Bryant St., San Francisco 7, Calif.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 200-202.
 Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia.
 Warren Mfg. Co., Inc., The Newton Rd., Littleton, Mass.

MULTIPLIERS—Crystal

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 374, 375.
DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KEARFOTT CO., INC., WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.

MULTIPLIERS—Diode

American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.

MULTIPLIERS—Electronic

American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
 Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
 Barden Corp., E. Franklin St., Danbury, Conn.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
 Donner Scientific Co., 888 Galindo St., Concord, Calif.
EASTERN PRECISION RESEARCH CORP., 675 Barbey St., St. Brooklyn, N. Y. ADV. PG. 451.
 Electronic Associates, Inc., Long Branch, N. J.
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
 Mid-Century Instrumental Corp., 611 Broadway, New York 12, N. Y.
 Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass.
 Southern Instruments Ltd., Computer Div., Frimley Rd., Camberley, Surrey.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

MULTIPLIERS—Frequency

AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 412.
 American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
 Avion Division, ACF Industries, Inc., 11 Park Place, Paramus, N. J.
DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, MO. ADV. PG. 649.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
 Ohio Crankshaft Co., Tocco Div., 3800 Harvard Ave., Cleveland, Ohio.
 Pantek Co., Box 212, El Segundo, Calif.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
TELEONIC INDUSTRIES, 73 N. 2nd Ave., Beach Grove, Ind. ADV. PG. 535.

MULTIPLIERS—Magnetic

American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, MO. ADV. PG. 649.
 Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
GENERAL MAGNETICS, INC., 135 Bloomfield Ave., Bloomfield, N. J. ADV. PG. 426.
MC KAY ELECTRIC CO., 19790 Stahelin Ave., Detroit 19, Mich. ADV. PG. 638.

MULTIPLIERS—Meter

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
HOYT ELECTRICAL INSTRUMENT WORKS, INC., 42 Carleton St., Cambridge 42, Mass. ADV. PG. 587.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Precision Resistor Co., 109 U. S. Highway #22, Hillside 5, N. J.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.

MULTIPLIERS—Servo

American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
 Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
 Electronic Associates, Inc., Long Branch, N. J.
 Feedback Controls, Inc., 899 Main St., Waltham 54, Mass.
 Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
INDUSTRIAL CONTROL CO., 805 Albin Ave., Lindenhurst, N. Y. ADV. PG. 510.
 Mid-Century Instrumental Corp., 611 Broadway, New York 12, N. Y.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Servonics, Inc., 822 N. Henry St., Alexandria, Va.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

MULTIPLIERS

See **TESTERS—Multitesters**

MULTIVIBRATORS

See **VIBRATORS—Multivibrators**

MUSIC SYSTEMS—Industrial and Commercial

Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
 Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 Dukane Corp., St. Charles, Ill.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 Magnecord, Inc., 1101 S. Kilbourn Ave., Chicago 24, Ill.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 Webster Electric Co., 1900 Clark St., Racine, Wis.

NAILS—Special

Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
 American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
 Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
 Autocrew Co., 216-222 W. 18th St., New York, N. Y.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Hassall, Inc., John, P. O. Box 2242, Westbury, N. Y.
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
 National Screw & Mfg. Co., The, Cleveland 4, Ohio.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.

NAME PLATES

See **PLATES, NAME—Metal or Plastic**

NEEDLES—Cutting

American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
 Audio Devices, Inc., 444 Madison Ave., New York 22, N. Y.
 Capps & Co., Inc., 20 Addison Place, Valley Stream, N. Y.
 Duotone Co., Inc., Keyport, N. J.
 Electrovox Co., Inc., 60 Franklin St., East Orange, N. J.
 Fidelitone, Inc., 6415 Ravenswood, Chicago 26, Ill.
 Jensen Industries, Inc., 7333 W. Harrison, Forest Park, Ill.
 Lipps, Inc., Edwin A., 5485 W. Washington Blvd., Los Angeles 16, Calif.
 Miller Mfg. Co., M. A., 4th & Church Sts., Libertyville, Ill.
 Permo, Inc., 6415 Ravenswood Ave., Chicago 26, Ill.
 Presto Recording Corp., P. O. Box 500, Paramus, N. J.
 Recoton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.
 Reeves Soundcraft Corp., 10 E. 52nd St., New York 22, N. Y.

NEEDLES—Diamond

Audak Co., 500 Fifth Ave., New York, N. Y.
 Duotone Co., Inc., Keyport, N. J.
 Electrovox Co., Inc., 60 Franklin St., East Orange, N. J.
 Fidelitone, Inc., 6415 Ravenswood, Chicago 26, Ill.
 Jensen Industries, Inc., 7333 W. Harrison, Forest Park, Ill.
 Lipps, Inc., Edwin A., 5485 W. Washington Blvd., Los Angeles 16, Calif.
 Miller Mfg. Co., M. A., Fourth & Church Sts., Libertyville, Ill.
 Permo, Inc., 6415 Ravenswood Ave., Chicago 26, Ill.
 Pfanstiehl Chemical Corp., 104 Lake View Ave., Waukegan, Ill.
 Recoton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.
 Shure Brothers, Inc., 246 Hartrey Ave., Evanston, Ill.
 Tetrad Co., Inc., The, 62 St. Mary St., Yonkers 2, N. Y.
 Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

NEEDLES—Playback

American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
 Audak Co., 500 Fifth Ave., New York, N. Y.
 Audio Devices, Inc., 444 Madison Ave., New York 22, N. Y.
 Capps & Co., Inc., 20 Addison Place, Valley Stream, N. Y.
 Duotone Co., Inc., Keyport, N. J.
 Electrovox Co., Inc., 60 Franklin St., East Orange, N. J.
 Fidelitone, Inc., 6415 Ravenswood, Chicago 26, Ill.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Jensen Industries, Inc., 7333 W. Harrison, Forest Park, Ill.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.

Miller Mfg. Co., M. A., 4th & Church Sts., Libertyville, Ill.
 Pacific Transducer EBG Corp., 21836 W. Pico Blvd., Los Angeles 64, Calif.
 Permo, Inc., 6415 Ravenswood Ave., Chicago 26, Ill.
 Pfanstiehl Chemical Corp., 104 Lake View Ave., Waukegan, Ill.
 Presto Recording Corp., P. O. Box 500, Paramus, N. J.
 Recoton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.
 Reeves Soundcraft Corp., 10 E. 52nd St., New York 22, N. Y.
 Shure Brothers, Inc., 246 Hartrey Ave., Evanston, Ill.

NETWORKS—Crossover

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
 American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 Bozak Mfg. Co., R. T., The Box 966, Darien, Conn.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
 Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa.
 Lynnmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 National Capacitor Co., 18 Webster St., Brookline, Mass.
 ORTHO FILTER CORP., 198 Albion Ave., Paterson, 2, N. J. ADV. PG. 648.
 Racor Electric Co., 1261 Broadway, New York 1, N. Y.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
 Trutone Electronic, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 Vidair Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.

NETWORKS—Directional Antenna Phasing

Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
 ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Collins Radio Co., Cedar Rapids, Iowa.
 ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
 Lynnmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
 Q.R.K. Electronic Products, 445 N. Circle Drive, Fresno 4, Calif.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.

NETWORKS—Matching

Admittance-Namco Corp., Farmingdale, N. Y.
 AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
 ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 Dmster Mfg., Co., Inc., 22-24 Larkin Plaza, Yonkers 2, N. Y.
 ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
 EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
 Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Holland Electronics, 40 Great Jones St., New York 12, N. Y.
 Lynnmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
 ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
 PRECISION CAPACITORS, INC., 150 W. Cypress Ave., Burbank, Calif. ADV. PG. 318.
 Q.R.K. Electronic Products, 445 N. Circle Drive, Fresno 4, Calif.
 Sage-Craft, Inc., Norwich, N. Y.
 SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
 SOUTHERN ELECTRONICS CORP., 150 W. Cypress Ave., Burbank, Calif. ADV. PG. 166.

Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
 UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 514.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

NETWORKS—Pulse Forming

AMP INC., 2100 Paxton St., Harrisburg, Pa. ADV. PG. 339.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
 Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
 COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Condenser Products Div., New Haven Clock & Watch Co., 140 Hamilton St., New Haven, Conn.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
 ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
 FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
 Lynnmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 National Capacitor Co., 18 Webster St., Brookline, Mass.
 NAVIGATION COMPUTER CORP., 1621 Snyder Ave., Philadelphia 45, Pa. ADV. PG. 585.
 ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
 RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
 Sickles, F.W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 TECHNITROL ENGINEERING CO., 1952 E. Allegheny Ave., Philadelphia 34, Pa. ADV. PG. 309.
 TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W. 3, England.
 TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.

NULL

See DETECTORS

NUTS

Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
 ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
 Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
 Alvo Nut & Bolt Co., Inc., 1601 Grande Vista Ave., Los Angeles 23, Calif.
 Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
 Atlas Screw & Specialty Co., 450 Broome St., New York 13, N. Y.
 Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
 Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.
 Boots Aircraft Nut Corp., Newton Ave., Norwalk, Conn.
 Central Screw Co., 3501 Shields Ave., Chicago 9, Ill.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
 Elastic Stop Nut Corp., 2330 Vauxhall Rd., Union, N. J.
 FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
 Greer Stop Nut Co., 2620 W. Fluoroy St., Chicago 12, Ill.
 GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
 Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
 Haynes Stellite Co., A Div. of Union Carbide & Carbon Corp., 725 S. Lindsay St., Kokomo, Ind.

I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
 Irwin Products, 6312 N. Artesian Ave., Chicago 45, Ill.
 Jacobson Nut Mfg. Corp., Market St., Kenilworth 2, N. J.
 KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 683.
 Klincher Locknut Corp., 2153 Hillside Ave., Indianapolis 18, Ind.
 Lamson & Sessions Co., 1971 W. 85th St., Cleveland 2, Ohio.
 LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 664.
 National Screw & Mfg. Co., The, Cleveland 4, Ohio.
 Nugent Electronics Co., New Albany, Ind.
 Parker-Kalon Div. of General American Transportation Corp., Clifton, N. J.
 Pheoll Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.
 Progressive Mfg. Co., 50 Norwood St., Torrington, Conn.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Rosan Inc., 2901 West Coast Highway, Newport Beach, Calif.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 Sinclair Mfg. Co., Chartley, Mass.
 Standard Locknut & Lockwasher Inc., 2250 Valley Ave., Indianapolis 18, Ind.
 Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
 Tinnerman Products, Inc., P. O. Box 6688, Dept. No. 16, Cleveland 1, Ohio.
 UNITED-CARR FASTENER CORP., Cambridge 42, Mass. ADV. PG. 64.
 United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Walasco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
 Weckesser Co., 5701 Northwest Highway, Chicago 50, Ill.

NUTS—Self-Locking

Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
 Alvo Nut & Bolt Co., Inc., 1601 Grande Vista Ave., Los Angeles 23, Calif.
 Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
 Boots Aircraft Nut Corp., Newton Ave., Norwalk, Conn.
 Central Screw Co., 3501 Shields Ave., Chicago 9, Ill.
 Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S. E., Massillon, Ohio.
 Elastic Stop Nut Corp., 2330 Vauxhall Road, Union, N. J.
 FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
 Greer Stop Nut Co., 2620 W. Fluoroy St., Chicago 12, Ill.
 Haynes Stellite Co., A Div. of Union Carbide & Carbon Corp., 725 S. Lindsay St., Kokomo, Ind.
 Jacobson Nut Mfg. Corp., Market St., Kenilworth 2, N. J.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 683.
 Klincher Locknut Corp., 2153 Hillside Ave., Indianapolis 18, Ind.
 Lamson & Sessions Co., 1971 W. 85th St., Cleveland 2, Ohio.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 National Screw & Mfg. Co., The, Cleveland 4, Ohio.
 Nylok Corp., The, 611 Industrial Ave., Paramus, N. J.
 Palnut Co., The, 77 Glen Rd., Mountainside, N. J.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Rosan, Inc., 2901 West Coast Highway, Newport Beach, Calif.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 Shakeproof Div. of Illinois Tool Works, St. Charles Rd., Elgin, Ill.
 Shearcut Tool Co., 7045 Darby Ave., Reseda, Calif.
 Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.
 Star Stainless Screw Co., 655 Union Blvd., Totowa, N. J.
 Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
 Thompson-Bremer & Co., 520 N. Dearborn, Chicago 10, Ill.
 Tinnerman Products, Inc., P. O. Box 6688, Dept. No. 16, Cleveland 1, Ohio.
 UNITED-CARR FASTENER CORP., Cambridge 42, Mass. ADV. PG. 64.
 Waterbury Pressed Metal Co., P-M Nut Div., 300 Chase Ave., Waterbury 14, Conn.

NYLON

See INSULATING MATERIALS

OHMMETERS

See INSTRUMENTS—Electrical Measuring

O RINGS

See GASKETS

WASHERS—Insulating

OPTICAL EQUIPMENT AND SPECIALTIES

American Optical Co., Instrument Div., Box A, Buffalo 15, N. Y.
 Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
 Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
 Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
 Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
 Camera Mart Inc., 1845 Broadway, New York 23, N. Y.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Eastman Kodak Co., 343 State St., Rochester 4, N. Y.
 Eichner Instruments, L. C., 19 Sebago St., Clifton, N. J.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
 Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
 GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
 Gurley, W. & L. E., 514 Fulton St., Troy, N. Y.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Keim Precision Mirrors, 1346 E. Colorado St., Glendale 5, Calif.
 Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
 Keuffel & Esser Co., Hoboken, N. J.
 O & S Research, Inc., 1811 Barnard St., Riverton, N. J.
 Perkin-Elmer Corp., Main Ave., Norwalk, Conn.
 Polan Industries Inc., P. O. Box 1720, Huntington, W. Va.
 PRECISE MEASUREMENTS CO., R.D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 Research Development Manufacture Inc., 429 E. Colom St., Philadelphia 44, Pa.
 Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
 TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Vacuum Equipment Div. of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.
 Van Keuren Co., 176 Waltham St., Watertown, Mass.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
 Zenith Optical Laboratory, 1940 Great Neck Rd., Copeague, N. Y.
 Zoomar, Inc., Glen Cove, N. Y.

OSCILLATORS—Audio Fork Controlled

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
 AMERICAN TIME PRODUCTS, INC., 580 Fifth Ave., New York 36, N. Y. ADV. PG. 440.
 Antlab, 4950 N. High St., Columbus 14, Ohio.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Multhead & Co., Ltd., Beckenham, Kent, England.
 Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 468.
 VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
 WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 42.

OSCILLATORS—Audio Frequency

Adler Electronic, Inc., 1 LeFevre Lane, New Rochelle, N. Y.
 Airmec, Ltd., High Wycombe, Buckinghamshire, England.
 American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
 AMERICAN TIME PRODUCTS, INC., 580 Fifth Ave., New York 36, N. Y. ADV. PG. 440.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
 Bruel & Kjaer, Naerum, Denmark.
 BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
 Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Clough Bregle Co., 6014 N. Broadway, Chicago, Ill.
 Conn. Ltd. C. G., 1101 E. Beardsley Ave., Elkhart, Ind.
 Donner Scientific Co., 888 Galindo St., Concord, Calif.
 Dubrow Development Co., 235B Penn St., Burlington, N. J.
 DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
 Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
 Dynac, Inc., 395 Page Mill Rd., Palo Alto, Calif.

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
 ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
 ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
 ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
 Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
 HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
 INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
 Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
 KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
 KROHN-HITE CORP., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 82, 83.
 L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 LING ELECTRONICS, INC., 5170 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
 M F ELECTRONICS, 122 E. 25th St., New York 10, N. Y. ADV. PG. 512.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Measurement Engineering, Ltd., Annprior, Ontario, Canada.
 Metronix, Inc., Mill Lane, Waterford, Conn.
 Muirhead & Co., Inc., Beckenham, Kent, England.
 Nelson Instrument Co., 607 Howard St., Evanston, Ill.
 Northeast Electronics Corp., P. O. Box 425, Municipal Airport, Concord, N. H.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Pulse Techniques, Inc., 1411 Palisade Ave., West Englewood, N. J.
 Radex Corp., 2076 N. Elston Ave., Chicago 14, Ill.
 RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Ransom Research, Box 382, San Pedro, Calif.
 Remler Company, 2101 Bryant St., San Francisco 10, Calif.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Shasta Div. of Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif.
 Solartron, Inc., Western Div., 10761 Burbank Blvd., North Hollywood, Calif.
 SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.
 Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. ADV. PG. 661.
 Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia 4, Pa.
 Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
 TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 535.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 Waveforms, Inc., 333 Sixth Ave., New York 14, N. Y.
 WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 42.

OSCILLATORS—Cavity

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
 C.G.S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
 Cavitron Electron Oscillator Co. Div. of Short Wave Plastic Forming Co., 355 N. Newport Blvd., Newport Beach, Calif.
 DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
 DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
 FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
 FREQUENCY STANDARDS, INC., P. O. Box 504, Asbury Park, N. J. ADV. PG. 578.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Gombos Co., Inc., John, 103 Montgomery Ave., Irvington, N. J.

J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
 Maxson Instruments A Div. of the W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
 Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
 TRANSTRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.
 Woodwelding, Inc., 3000 W. Olive, Burbank, Calif.

OSCILLATORS—Crystal

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 BLILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 178, 179.
 BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
 COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
 Decade Instrument Co., Box 153, Caldwell, N. J.
 ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Hill Electronic Engineering & Mfg. Co., Inc., New Kingstown, Pa.
 HYGON EASTERN, INC., Dept. EBG, 75 Cambridge Parkway, Cambridge, Mass. ADV. PG. 400, 401.
 International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla.
 Jowill Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
 KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
 KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 521.
 MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 MCCOY ELECTRONICS CO., Mount Holly Springs, Pa. ADV. PG. 286.
 Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
 Norrman Laboratories, Ernst, Williams Bay, Wis.
 Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Ransom Research, Box 382, San Pedro, Calif.
 Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 SCIENTIFIC RADIO PRODUCTS, INC., 215 S. 11th, Omaha, Neb. ADV. PG. 657.
 STANDARD CRYSTAL CO., 1714 Locust St., Kansas City 8, Mo. ADV. PG. 558.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Trip-T Co., Electronics, Box 5352, Pasadena, Calif.
 WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.

OSCILLATORS, GRIP DIP—High Frequency & vhf

Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
 Cavitron Electron Oscillator Co. Div. of Short Wave Plastic Forming Co., 355 N. Newport Blvd., Newport Beach, Calif.
 COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
 HEATH CO. A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
 MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 94.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
 Woodwelding, Inc., 3000 W. Olive, Burbank, Calif.

OSCILLATORS—Microwave Power
See MICROWAVE ACCESSORIES

OSCILLATORS—Oven Crystal Control

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Hill Electronic Engineering & Mfg. Co., Inc., New Kingstown, Pa.
 KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 521.
 MCCOY ELECTRONICS CO., Mount Holly Springs, Pa. ADV. PG. 286.

MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.
STANDARD CRYSTAL CO., 1714 Locust St., Kansas City 8, Mo. ADV. PG. 558.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.

OSCILLATORS—Pulsed

ARENBERG ULTRASONIC LABORATORY, INC., 94 Green St., Jamaica Plain 30, Mass. ADV. PG. 672.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
ELECTRO-PULSE, INC., 11861 Teale St., Culver City, Calif. ADV. PG. 651.
ELECTROMATION CO., 1646 Eighteenth St., Santa Monica, Calif. ADV. PG. 692.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
Northeast Electronics Corp., P. O. 425, Municipal Airport, Concord, N. H.
TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 535.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 174, 175, 411.
WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 42.

OSCILLATORS—Pushbutton

KROHN-HITE CORP., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 82, 83.
Pulse Techniques, Inc., 1411 Palisades Ave., West Englewood, N. J.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
WEINSCHEL Engineering Co., Inc., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 42.

OSCILLATORS—Radio Frequency

ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Airmec Ltd., High Wycombe, Buckinghamshire, England.
Aladdin Electronics, A Div. of Aladdin Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 355 N. Newport Blvd., Newport Beach, Calif.
Cinema-Television, Ltd., Worsley Bridge Rd., London SE 26, England.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
Clough Brengle Co., 6014 N. Broadway, Chicago, Ill.
Collins Radio Co., Cedar Rapids, Iowa.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
Erdco Engineering Corp., Addison, Ill.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Gates Radio Co., Quincy, Ill.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Gerlyn Engineering Co., 2151 N. Damen Ave., Chicago, 47, Ill.
Gyro Electronics Co., 325 Canal St., New York, N. Y.
HEATH CO., A SUB. OF DAYSTRON, INC., Benton Harbor 14, Mich. ADV. PG. 575.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
Jowill Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London W. C. 2, England. ADV. PG. 560.
Northeast Electronics Corp., P. O. Box 425, Municipal Airport, Concord, N. H.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 200-202.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Press Wireless Laboratories, Inc., 25 Prospect Pl., West Newton 65, Mass.
Production Research Corp., Thornwood, N. Y.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.
Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TELONIC INDUSTRIES, 73 N. Second Ave., Beach Grove, Ind. ADV. PG. 535.
Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.
WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 42.
Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.
Woodwelding, Inc., 3000 West Olive, Burbank, Calif.

OSCILLATORS—Sweeping

Alfred Electronics, 897 Commercial St., Palo Alto, Calif.
Bruel & Kjaer, Naerum, Denmark.
Clough-Brengle Co., 6014 N. Broadway, Chicago, Ill.
Decade Instrument Co., Box 153, Caldwell, N. J.
Dynac, Inc., 395 Page Mill Rd., Palo Alto, Calif.
Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
HEATH CO., A SUB. OF DAYSTRON, INC., Benton Harbor 14, Mich. ADV. PG. 575.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
LING ELECTRONICS, INC., 5170 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Servomex Controls Ltd., 80 Shore Rd., Port Washington, N. Y.
Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
TELONIC INDUSTRIES, 73 N. Second Ave., Beach Grove, Ind. ADV. PG. 535.
TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.
Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio.
VARI-L CO., INC., P. O. Box 1433, Stamford, Conn. ADV. PG. 608.
White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

OSCILLATORS—Ultra-Low Frequency

BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
Donner Scientific Co., 888 Galindo St., Concord, Calif.

Dubrow Development Co., 2358 Penn St., Burlington, N. J.
DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
Hill Electronic Engineering & Mfg. Co., Inc., New Kingstown, Pa.
KROHN-HITE CORP., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 82, 83.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Servomex Controls Ltd., 80 Shore Rd., Port Washington, N. Y.
Solartron, Inc., Western Div., 10761 Burbank Blvd., North Hollywood, Calif.
STANDARD CRYSTAL CO., 1714 Locust St., Kansas City 8, Mo. ADV. PG. 558.
Waveforms, Inc., 333 Sixth Ave., New York 14, N. Y.
Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.

OSCILLATORS—Ultrasonic

Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
ARENBERG ULTRASONIC LABORATORY, INC., 94 Green St., Jamaica Plain 30, Mass. ADV. PG. 672.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 605.
Bruel & Kjaer, Naerum, Denmark.
BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 355 N. Newport Blvd., Newport Beach, Calif.
Decade Instrument Co., Box 153, Caldwell, N. J.
DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
FRED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
KROHN-HITE CORP., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 82, 83.
McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.
McKenna Laboratories, Santa Monica 6, Calif.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Metronix, Inc., Mill Lane, Waterford, Conn.
Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
Power Supplies, Inc., 1007 Olive St., Highland, Ill.
Production Research Corp., Thornwood, N. Y.
Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.
Shasta Div. of Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Telephonics Corp., Park Ave., Huntington, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
Waveforms, Inc., 333 Sixth Ave., New York 14, N. Y.
Woodwelding, Inc., 3000 W. Olive, Burbank, Calif.

OSCILLOGRAPHS

See OSCILLOSCOPES

OSCILLOGRAPHS—Cathode Ray Camera

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
Cinema-Television Ltd., Worsley Bridge Rd., London, S.E. 26, England.
DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

OSCILLOGRAPHS—Cathode Ray Recording, Multichannel

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.

Amelco, Inc., 2040 Colorado Ave., Santa Monica, Calif.
Central Research Laboratories, Inc., Red Wing, Minn.
Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.
Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
Hathaway Instrument Div., Hamilton Watch Co., 5800 E. Jewell Ave., Denver 22, Colo.
Levinthal Electronic Products, Inc., 3180 Hanover St., Stanford Industrial Park, Palo Alto, Calif.
Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.

OSCILLOGRAPHS—Direct Writing

ACTON LABORATORIES, INC., 533 Main St., Acton, Mass. ADV. PG. 267.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
Amelco, Inc., 2040 Colorado Ave., Santa Monica, Calif.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Century Electronics & Instruments, Inc., P.O. Box 6216, Pine Station, Tulsa 10, Okla.
Cinema-Television Ltd., Worsley Bridge Rd., London S.E. 26, England.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
Edin Co., Inc., 207 Main St., Worcester, Mass.
Electro-Medical Lab., Inc., South Woodstock 8, Vt.
Epic, Inc., 154 Nassau St., New York 38, N. Y.
Helland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
Mid-Century Instrumental Corp., 611 Broadway, New York 12, N. Y.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.

OSCILLOGRAPHS—Multi-Element

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
Amelco, Inc., 2040 Colorado Ave., Santa Monica, Calif.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Century Electronics & Instruments, Inc., P.O. Box 6216, Pine Station, Tulsa 10, Okla.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Epic, Inc., 154 Nassau St., New York 38, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Hathaway Instrument Div., Hamilton Watch Co., 5800 E. Jewell Ave., Denver 22, Colo.
Helland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
Texas Division, Brush Electronics Co., 3732 Westheimer Rd., Houston 6, Texas.

OSCILLOGRAPHS—Recording

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
Berndt-Bach, Inc., Aurion Div., 6924 Romaine St., Hollywood 38, Calif.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Edin Co., Inc., 20 Main St., Worcester, Mass.
Epic, Inc., 154 Nassau St., New York 38, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Hathaway Instrument Div., Hamilton Watch Co., 580 E. Jewell Ave., Denver 22, Colo.
Helland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
Mid-Century Instrumental Corp., 611 Broadway, New York 12, N. Y.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.
Texas Division, Brush Electronics Co., 3732 Westheimer Rd., Houston 6, Texas.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.

OSCILLOGRAPHS—Transient Study

See **OSCILLOSCOPES—Cathode Ray**

OSCILLOSCOPES

See **OSCILLOSCOPES ACCESSORIES**

See **TRACERS—Manual, for Oscilloscopes**

OSCILLOSCOPES—Cathode Ray

Alrmec Ltd., High Wycombe, Buckinghamshire, England.
Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
Dubrow Development Co., 235B Penn St., Burlington, N. J.
Du Mont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
Eberline Instrument Division, P. O. Box 279, Santa Fe, N. M.
Edgerton, Germeshausen & Grier, Inc., 160 Brookline Ave., Boston, Mass.
Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
Electronic Measurements Corp., 280 Lafayette St., New York 12, N. Y.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
HEWITT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
Hycon Electronics, Inc., P. O. Box D, Pasadena, Calif.
Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
Jowill Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 560.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.

RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Railway Communications, Inc., 9351 E. 59th St., Raytown, Mo.
Republic Electronic Industries Corp., 31 W. 27th St., New York 1, N. Y.
Simpson Electric Co. Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
Solartron, Inc., Western Div., 10761 Burbank Blvd., North Hollywood, Calif.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.
Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
Tektronix, Inc., P. O. Box 831, Portland 7, Ore.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
TRAD ELECTRONICS CORP., 1001 First Ave., Asbury Park, N. J. ADV. PG. 522.
WATERMAN PRODUCTS CO., INC., 2445-63 Emerald St., Philadelphia 25, Pa. ADV. PG. 172, 173.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

OSCILLOSCOPES, Cathode Ray—Multiple Channel

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
Cinema-Television Ltd., Worsley Bridge Rd., London, S.E. 26, England.
Du Mont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London W. C. 2, England. ADV. PG. 560.
Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.
Railway Communications, Inc., 9351 E. 59th St., Raytown, Mo.
Simpson Electric Co. Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.
Tektronix, Inc., P. O. Box 831, Portland 7, Ore.
WATERMAN PRODUCTS CO., INC., 2445-63 Emerald St., Philadelphia 25, Pa. ADV. PG. 172, 173.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

OSCILLOSCOPES—Portable

Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
Du Mont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Hycon Electronics, Inc., P. O. Box D, Pasadena, Calif.
Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
Jowill Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
P. B. R. MFG. CO., H. & Luzerne, Philadelphia 24, Pa. ADV. PG. 684.
Polytronic Research, Inc., 7660 Woodbury Drive, Silver Spring, Md.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 697.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third and Fourth Covers.
Simpson Electric Co. Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
Spivey, Inc., James S., 4908 Hamden Lane, Washington 14, D. C.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Tektronix, Inc., P. O. Box 831, Portland 7, Oregon.

TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
WATERMAN PRODUCTS CO., INC., 2445-63 Emerald St., Philadelphia 25, Pa. ADV. PG. 172, 173.

OSCILLOSCOPES—Portable Projection

LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
Simpson Electric Co. Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.

OVENS—Crystal

BLILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 178, 179.
BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 2nd St., Woodside 77, N. Y. ADV. PG. 504.
CLARK CRYSTAL CO., Farm Rd., Marlboro, Mass. ADV. PG. 512.

Cox & Co., Inc., 115 E. 23rd St., New York 10, N. Y. Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y. Hill Electronic Engineering & Mfg. Co., Inc., New Kingstown, Pa.
HUNT CORP., 453 Lincoln St., Carlisle, Pa. ADV. PG. 532.

Hupp Electronics Co., 265 E. Pomfret St., Carlisle, Pa. International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla.

JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 86, 87.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.

Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston, Mass.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 521.

L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.

MCQOY ELECTRONICS CO., Mount Holly Springs, Pa. ADV. PG. 286.

Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind. **MANSON LABORATORIES, INC.**, 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.

MIDLAND MFG. CO., INC., 3155 Fiberglass Rd., Kansas City 16, Kansas. ADV. PG. 367.
Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.

Monitor Products Co., 815 Fremont Ave., South Pasadena, Calif.

NORTHERN ENGINEERING LABS., INC., 372 Wilmet Ave., Burlington, Wis. ADV. PG. 668.
Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.

Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.

SCIENTIFIC RADIO PRODUCTS, INC., 215 S. 11th Omaha, Neb. ADV. PG. 657.
STANDARD CRYSTAL CO., 1714 Locust St., Kansas City 8, Mo. ADV. PG. 558.

VALPEY CRYSTAL CORP., 1244 Highland St., Holliston, Mass. ADV. PG. 561.
Williamson Development Co., Inc., 317 Main St., West Concord, Mass.

OVENS—Electric

Acme Electric Heating Co., 1217 Washington St., Boston, Mass.
Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.

Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.

Cox & Co., Inc., 115 E. 23rd St., New York 10, N. Y. Despatch Oven Co., Minneapolis, Minn.
Fostoria Pressed Steel Corp., Fostoria, Ohio.

Grieve-Hendry Co., Inc., 1401-17 W. Carroll Ave., Chicago 7, Ill.

Hayes Inc., C. I., 800 Wellington Ave., Cranston, R. I. Hudson Bay Co., Div. of Labline, Inc., 3070 W. Grand Ave., Chicago 22, Ill.

Huppert Co., K., H., 6824 S. Cottage Grove Ave., Chicago 37, Ill.

KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.

Miskella Infra-Red Co., The, 73rd & Grand Ave., Cleveland 4, Ohio.

New England Oven & Furnace Co., Post Rd., Orange, Conn.

Pimex Inc., 18 E. 60th St., New York 22, N. Y. Steiner-Ives Co., Springfield Rd., Union, N. J.

United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

Young Brothers Co., 1829 Columbus Rd., Cleveland, Ohio.

OVENS—Infra-Red Drying

Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
Fostoria Pressed Steel Corp., Fostoria, Ohio.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.

Miskella Infra-Red Co., The, 73rd & Grand Ave., Cleveland 4, Ohio.
New England Oven & Furnace Co., Post Rd., Orange, Conn.
Steiner-Ives Co., Springfield Rd., Union, N. J.

PACKAGING—Electronic Equipment, Service Only

Bolling Industries, Inc., 1117 N. Main Ave., Scranton 2, Pa.
Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.

BRIGGS ASSOCIATES, INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.

Cargo Packers, 37-20 14th Ave., Brooklyn, N. Y. ConRay Corp., 29 W. Apple St., Dayton 2, Ohio.
Decatur Electronics Industries Corp., 203 Ornicco Drive, Brightwater, N. Y.

DUNN ENGINEERING ASSOCIATES INC., 186 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 695.
Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.

EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.

Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.

ELECTRONIC PLASTICS CORP., 675 Barbey St., Brooklyn 7, N. Y. ADV. PG. 663.
Electronics Research Labs., 85 Surrey St., Brighton 35, Mass.

ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.

FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.

FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
GENERAL CEMENT MFG. CO., DIV. OF TETRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.

GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Valley Stream, N. Y. ADV. PG. 679.
Hanson-Gorrill-Brian, Inc., 85 Hazel St., Glen Cove, N. Y.

Industrial Electronic Engineers, 3973 Lankershim Blvd., North Hollywood, Calif.
Long Packaging Co., W. D., 157 Santa Clara St., Arcadia, Calif.

MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.

Mutron Corp., 125 Perkins Ave., Brockton, Mass.
RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.

Remler Company, 2101 Bryant St., San Francisco 10, Calif.

SONEX, INC., 73 S. State Rd., Upper Darby, Pa. ADV. PG. 664.
Spivey Inc., James S., 4908 Hampden Lane, Washington 4, D. C.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.

Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
White Aircraft Corp., Palmer, Mass.

PACKAGING MATERIALS

Applegate & Co., C. J., 1840 24th St., Boulder, Colo. Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

Blockson & Co., Michigan City, Ind.
Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.

Calresin Corp., 4543 Brazil St., Los Angeles 39, Calif. Celanese Corp. of America, Plastics Div., 290 Ferry St., Newark 5, N. J.

Continental Can Co., 100 E. 42nd St., New York 17, N. Y.

Corrugated Paper Products, Inc., 2233 Utica Ave., Brooklyn 34, N. Y.

Daubert Chemical Co., 333 N. Michigan Ave., Chicago 1, Ill.

du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.

EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.

Eastman Kodak Co., 343 State St., Rochester 4, N. Y. Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.

Fox Co., C. J., The, 236 Aborn St., P. O. Box 1186, Providence 1, R. I.

GOODRICH SPONGE PRODUCTS, B. F., A DIV. OF THE B. F. GOODRICH CO., Shelton, Conn. ADV. PG. 147.

Hinde & Dauch, Sandusky, Ohio.
Koch & Sons, H., Corte Madera, Calif.

LERMER PLASTICS, INC., 522 South Ave., Garwood, N. J. ADV. PG. 585.

Marvellum Co., Holyoke, Mass.
MOSINEE PAPER MILLS, INC., Dept. EB-7, Mosinee, Wis. ADV. PG. 81.

Muckle Mfg. Co., Owatonna 55, Minn.
Olin Mathieson Chemical Corp., 460 Park Ave., New York 22, N. Y.

Olympic Plastics Co., Inc., 3471 S. LaCienega Blvd., Los Angeles 16, Calif.
PETER PARTITION CORP., 124 Boerum Place, Brooklyn 1, N. Y. ADV. PG. 556.

Peters-Dalton, Inc., 17872 Ryan Rd., Detroit 12, Mich. Protective Coatings Corp., 596 River Rd., Clifton, N. J. Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky.

Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.

Texloid Products Co., 81 Rumford Ave., Waltham, Mass. United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.
White Aircraft Corp., Palmer, Mass.

PAINTS—Conductive (for Printed Circuits)

Acheson Colloids Co., 1950 Washington Ave., Port Huron, Mich.

Anderson Associates, H. V., 239 Park Ave., Berkeley Heights, N. J.

California Bent Glass Corp., Torrance, Calif.
du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Delaware.

HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 328.

Micro-Circuits Co., New Buffalo, Mich.
Midland Paint & Varnish Co., 9115 Reno Ave., Cleveland 5, Ohio.

Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.

Tempil Corp., 132 W. 22nd St., New York 11, N. Y. **Topper Mfg. Co., Inc.**, 43 Roselle St., Mineola, N. Y.

PAINTS—Resistive (for Printed Circuits)

Acheson Colloids Co., 1950 Washington Ave., Port Huron, Mich.

California Bent Glass Corp., Torrance, Calif.
Cudner & O'Connor Co., 4035 W. Kinzie Ave., Chicago 24, Ill.

Micro-Circuits Co., New Buffalo, Mich.
Midland Industrial Finishes Corp., Dept. I-20, Waukegan, Ill.

Naz-Dar Co., 465 Milwaukee Ave., Chicago 10, Ill.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.

Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

PANEL LIGHTS

See **LIGHTS—Dial, Panel and Pilot**

PANELS—Instrument

A&P Metal Products Mfg. Corp., 111 Bloomingdale Rd., Hicksville, N. Y.

ABALON PRECISION MFG. CORP., 540 Cassanova St., Bronx 59, N. Y. ADV. PG. 644.

ACKERMAN ENGRAVERS, 458 Broadway, New York, N. Y. ADV. PG. 642.

Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J. **ALLIED ALLEGRI INC.**, 141 River Rd., Nutley, N. J. ADV. PG. 650.

Amco Engineering Co., 7335 Ainslie St., Chicago 31, Ill.

Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.

Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.

Atlantic Engravers, Inc., 52 Ocean Ave., Amityville, N. Y.

Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.

Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio. **CANADIAN RADIUM & URANIUM CORP.**, 630 Fifth Ave., New York 20, N. Y. ADV. PG. 665.

CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 605.

Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.

Columbia Metal Box Co., 260 E. 143rd St., New York, N. Y.

Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.

Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.

Croname, Inc., 1747 Grace St., Chicago 13, Ill.
Cutler Metal Products Co., 1025 Line St., Camden, N. J. Devco Engineering Inc., P. O. Box 387, Caldwell, N. J.

Diamond-Union Stamp Works, 81 Washington St., Boston 8, Mass.

Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.

Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.

Donnelly Mfg. Co., Div. of The Indian Co., 580 Winter St., Waltham 54, Mass.

Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.

Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.

Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.

Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.

Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.

Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.

Fairfield Engineering Corp., 934 Hope St., Springdale, Conn.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Fisher & Crome, 107 N. Camac St., Philadelphia 7, Pa.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.
 Hoffman Engineering Corp., Anoka, Minn.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
 Industrial Electronic Engineers, 3973 Lankershim Blvd., North Hollywood, Calif.
 Industrial Engravers, Inc., 2212 McDonald Ave., Brooklyn 23, N. Y.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
 Kell Engineering Products Co., 6833 Manchester, St. Louis, Mo.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
 McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Metal-Craft, Inc., Burgess Place, Mountain View, N. J.
 Mid-West Conveyor Co., Inc., Metal Products Div., 7th & Sunshine Rd., Fairfax District, Kansas City, Kan.
 Mobil Electronics Mfg. Co., 1111 State Rd., 67E, Anderson, Ind.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 Nelson Instrument Co., 607 Howard St., Evanston, Ill.
 Panelgraphic Corp., P. O. Box 254, Caldwell, N. J.
 Park Nameplate Co., Inc., 34-10 Linden Place, Flushing 54, N. Y.
 Peterson & Neville, Inc., 365 Dorchester Ave., Boston, Mass.
 Pfefer Products, 3901 W. 54th St., Los Angeles, Calif.
 Photo Chemical Products, Inc., 999A Stewart Ave., Garden City, N. Y.
 Plasteck, Inc., Poteau, Okla.
 REF Mfg. Corp., Jericho Turnpike, Mineola, N. Y.
 Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 530.
 Sierra Electric Corp., 15100 S. Figueroa St., P.O. Box 85, Gardena, Calif.
 Sightmaster Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
 Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
 Sun Dial Corp., E. Passaic Ave., Caldwell, N. J.
 Supreme Process Corp., 44 Bond St., Westbury, N. Y.
 Synthane Corp., Oaks, Pa.
 Taylor Fibre Co., Norristown, Pa.
 Techniques, Inc., 52 Jackson Ave., Hackensack, N. J.
 Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
 Trimm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
 Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.
 White Aircraft Corp., Palmer, Mass.

PANELS—Jack

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALLIED ALLEGRI, INC., 141 River Rd., Nutley, N. J. ADV. PG. 650.
 Amco Engineering Co., 7335 Ainslie St., Chicago 31, Ill.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Collins Radio Co., Cedar Rapids, Iowa.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Croname, Inc., 1747 Grace St., Chicago 13, Ill.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
 Fisher & Crome, 107 N. Camac St., Philadelphia 7, Pa.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.

Holland Electronics, 40 Great Jones St., New York 12, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
KEystone ELECTRONIC CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
 Mid-West Conveyor Co., Inc., Metal Products Div., 7th & Sunshine Rd., Fairfax District, Kansas City, Kan.
 Mobil Electronics Mfg. Co., 1111 State Rd., 67 E, Anderson, Ind.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Nems-Clarke, Inc., Silver Spring, Md.
 North Electric Co., 553 S. Market St., Gallon, Ohio.
 Pfefer Products, 3901 W. 54th St., Los Angeles, Calif.
POMONA ELECTRONICS CO., INC., 1126 W. Fifth Ave., Pomona, Calif. ADV. PG. 314.
 Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Remler Company, 2101 Bryant St., San Francisco 10, Calif.
 Rofan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
SEALECTOR CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 484.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 619.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.

PANELS—Receiver & Transmitter

ALLIED ALLEGRI, INC., 141 River Rd., Nutley, N. J. ADV. PG. 650.
 Amco Engineering Co., 7335 Ainslie St., Chicago 31, Ill.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
 Croname, Inc., 1747 Grace St., Chicago 13, Ill.
 Cutler Metal Products Co., 1025 Line St., Camden, N. J.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
 Fairfield Engineering Corp., 934 Hope St., Springdale, Conn.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
 Fisher & Crome, 107 N. Camac St., Philadelphia 7, Pa.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
 McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Metal-Craft, Inc., Burgess Place, Mountain View, N. J.
 Mid-West Conveyor Co., Inc., Metal Products Div., 7th & Sunshine Rd., Fairfax District, Kansas City, Kan.
 Mobil Electronics Mfg. Co., 1111 State Rd., 67 E, Anderson, Ind.
 Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 Pfefer Products, 3901 W. 54th St., Los Angeles, Calif.
 Plasteck, Inc., Poteau, Okla.
 Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
 Trimm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.

PANELS—Relay Rack

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 644.
ALLIED ALLEGRI, INC., 141 River Rd., Nutley, N. J. ADV. PG. 650.
 Amco Engineering Co., 7335 Ainslie St., Chicago 31, Ill.
 Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.

Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 605.
 Collins Radio Co., Cedar Rapids, Iowa.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
 Cutler Metal Products Co., 1025 Line St., Camden, N. J.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
 Fairfield Engineering Corp., 934 Hope St., Springdale, Conn.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
 Fisher & Crome, 107 N. Camac St., Philadelphia 7, Pa.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.
HAMMER ELECTRONICS CO., INC., Box 531, Princeton, N. J. ADV. PG. 671.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
 McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Metal-Craft, Inc., Burgess Place, Mountain View, N. J.
 Mid-West Conveyor Co., Inc., Metal Products Div., 7th & Sunshine Rd., Fairfax District, Kansas City, Kan.
 Mobil Electronics Mfg. Co., 1111 State Rd., 67E, Anderson, Ind.
 Par-Metal Products Corp., 32-62 49th St., Long Island City 3, N. Y.
 Peterson & Neville, Inc., 365 Dorchester Ave., Boston, Mass.
 Pfefer Products, 3901 W. 54th St., Los Angeles, Calif.
PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx 59, N. Y. ADV. PG. 646.
 Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
 Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
 Wyco Metal Products, 6918 Beck Ave., North Hollywood, Calif.

PAPER

See INSULATION MATERIALS

PAPER—Facsimile Recording

Acme Electronix Div., NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
ALFAX PAPER & ENGINEERING CO., Washington St., P. O. Box 125, Westboro, Mass. ADV. PG. 566.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
 Bruning Co., Inc., Charles, 4700 Montrose Ave., Chicago 41, Ill.
 General Photo Products Co., Inc., General Photo Bldg., 15 Summit Ave., Chatham, N. J.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 468.
 Western Union Telegraph Co., 60 Hudson St., New York 13, N. Y.

PAPER—Recording

Acme Electronix Div., NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
ALFAX PAPER & ENGINEERING CO., Washington St., P. O. Box 125, Westboro, Mass. ADV. PG. 566.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
Schweitzer, Inc., Peter J., 261 Madison Ave., New York 16, N. Y.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 468.
Western Union Telegraph Co., 60 Hudson St., New York 13, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

PARTS FOR COLOR TV TUBES

Crystals—Color TV Frequency Control
to Spacers—Bar

CRYSTALS—Color TV Frequency Control

BILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 178, 179.
BULOVA WATCH CO., INC., ELECTRONICS DIV., 40-06 62nd St., Woodside 77, N. Y. ADV. PG. 504.
C-W Mfg. Co., Box 2065, El Monte, Calif.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Eidson Electronic Co., 1902 N. Third St., Temple, Texas.
Hill Electronic Engineering & Mfg. Co., Inc., New Kingstown, Pa.
HUNT CORP., THE, 453 Lincoln St., Carlisle, Pa. ADV. PG. 532.
Hupp Electronics Co., 265 E. Pomfret St., Carlisle, Pa.
International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla.
KEYSTONE ELECTRONICS CO., 65 Seventh Ave., Newark, N. J. ADV. PG. 614.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 521.
MCCOY ELECTRONICS CO., Mount Holly Springs, Pa. ADV. PG. 286.
MIDLAND MFG. CO., INC., 3155 Fiberglass Rd., Kansas City 15, Kansas. ADV. PG. 367.
Monitor Products Co., 815 Fremont Ave., South Pasadena, Calif.
Nebel Laboratory, R. E., 1624 E. 12th St., Brooklyn 29, N. Y.
Pan-Electronics Corp., Box 404, Griffin, Ga.
Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.
SCIENTIFIC RADIO PRODUCTS, INC., 215 S. 11th, Omaha, Neb. ADV. PG. 657.
Sherold Crystals, Inc., 1510 McGee St., Kansas City, Mo. ADV. PG. 558.
STANDARD CRYSTAL CO., 1714 Locust St., Kansas City 8, Mo.
Wright Electronics Inc., 1519 McGee St., Kansas City 8, Mo.

DELAY LINES—Color TV

ADVANCE ELECTRONICS LAB., INC., 249-259 Terhune Ave., Passaic, N. J. ADV. PG. 420.
Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bel-Fuse, Inc., 311 Mountain Rd., Union City, N. J.
BREW & CO., INC., RICHARD D., Concord, N. H. ADV. PG. 524.
Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
Cinema-Television, Ltd., Worsley Bridge Rd., London S.E. 26, England.
COLUMBIA TECHNICAL CORP., 61-02 31 Ave., Woodside 77, N. Y. ADV. PG. 517.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63.
Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433.
Gray & Kuhn, Inc., 20 Railroad Ave., Roslyn Heights, N. Y.
Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill.
Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
Leonard Electric Products Co., Inc., 67 Thirty-Fourth St., Brooklyn 32, N. Y.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 268.
Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 13, Calif.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220.
Wickes Engineering & Construction Co., P. O. Box 590, Camden 1, N. J.

FRAMES—Grid

GENERAL ELECTRIC CO., SPECIALTY ELECTRONIC COMPONENTS DEPT., W. Genesee St., Auburn, N. Y. ADV. PG. 18.

MASKS—Aperture

JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 86, 87.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.

PLATES—Phosphor

Sillcocks-Miller Co., Maplewood, N. J.
U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.

SHIFTERS—Color Phase

ADVANCE ELECTRONICS LAB., INC., 249-259 Terhune Ave., Passaic, N. J. ADV. PG. 420.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

SPACERS—Bar

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Greer Stop Nut Co., 2620 W. Fluoroy St., Chicago 12, Ill.
Louis Laboratories, 1947 Broadway, New York 23, N. Y.
Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.

PERFORATED MATERIALS FOR ELECTRONIC EQUIPMENT

Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
Ferguson Perforating & Wire Co., 130 Ernest St., Providence 5, R. I.
Harrington & King Perforating Co., 5653 Fillmore St., Chicago 44, Ill.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.
LAMTEX INDUSTRIES, INC., 51 State St., Westbury, N. Y. ADV. PG. 596.
MUNDT & SONS, CHARLES, 53 Fairmount Ave., Jersey City 4, N. J. ADV. PG. 662.
Polyken Sales Div. of The Kendall Co., 309 W. Jackson Blvd., Chicago 6, Ill.

PERMEAMETERS—High H

Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.

PERMEATERS—R-F

National Electronics Laboratories, Inc., 1713 Kalorama Rd., N.W., Washington 9, D. C.

pH

See INDICATORS

PHENOLIC MOLDING COMPOUNDS

See INSULATING COMPOUNDS

PHONOGRAPHS—Electric Phonographs & Record Players

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
Andrea Radio Corp., 27-01 Bridge Plaza N., Long Island City 1, N. Y.
Audio Industries Inc., Michigan City, Ind.
Audio-Master Corp., 17 E. 45th St., New York 17, N. Y.
Audiovox, Inc., 123 Worcester St., Boston 18, Mass.
Autocrat Electronics Co., 5024 Elm St., Skokie, Ill.
Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
Califone Corp., 1041 N. Sycamore Ave., Hollywood 38, Calif.
Carron Mfg. Co., 415 S. Aberdeen St., Chicago, Ill.
Collaro, Ltd., (Rockbar Corp.), 650 Halstead Ave., Mamaroneck, N. Y.
Dukane Corp., St. Charles, Ill.
Electron Enterprise, 6917-19-21 Stanley Ave., Berwyn, Ill.
Emerson Radio & Phonograph Corp., 14th & Coles Sts., Jersey City, N. J.
Fidelity Amplifier Co., 703 Willow St., Chicago 14, Ill.
Hoffman Radio Div. of Hoffman Electronics Corp., 6200 S. Avalon Blvd., Los Angeles, Calif.
Lesa, Via Bergamo 21, Milan, Italy.
MP Engineering Co., Fairfield 3, Conn.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
Radio Corp. of America, Consumer Products Div., Camden 8, N. J.
Rek-O-Kut Co., 38-01 Queens Blvd., Long Island City 1, N. Y.

Seeburg, J. P., A Div of Fort Pitt Industries, Inc., 1500 N. Dayton St., Chicago 22, Ill.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
V-M Corp., Benton Harbor, Mich.
Waters Conley Co., 501 First St., N. W., Rochester, Minn.
Webcor, Inc., Chicago, Ill.
Weingarten Electronics Labs, Inc., 7556 Melrose Ave., Los Angeles 46, Calif.
Wells-Gardner & Co., 2701 N. Kildare Ave., Chicago 39, Ill.

PHONOGRAPHS—Transistor Operated

Electron Enterprises, 6917-19-21 Stanley Ave., Berwyn, Ill.
Trans-Aire Electronics, Inc., 195-02 Jamaica Ave., Hollis 23, N. Y.

PHOTO ETCHED COMPONENTS

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
Amelco, Inc., 2040 Colorado Ave., Santa Monica, Calif.
Ansley Mfg. Corp., Arthur, New Hope, Pa.
Automatic Processing Corp., 1335 N. Wells St., Chicago, Ill.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
CG Electronics Div. of Gulton Industries, Inc., 305 Dallas St., N. E., Albuquerque, N. M.
Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.
MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Pacific Universal Products Corp., 168 Vista Ave., Pasadena 8, Calif.
PHOTO CIRCUITS CORP., Glen Cove, N. Y. ADV. PG. 396.
Polan Industries Inc., P. O. Box 1720, Huntington, W. Va.
Sibley Co., The, Haddam, Conn.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.

PHOTOFLASH EQUIPMENT—Electronic

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 673.
American Speedlight Corp., 63-01 Metropolitan Ave., Middle Village 79, N. Y.
Amgo Corp., 4333 N. Ravenswood Ave., Chicago 13, Ill.
Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass.
Edgerton, Gernsmausen & Grier Inc., 160 Brookline Ave., Boston, Mass.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
Hauman Instrument Co., Inc., 70 Coolidge Hill Rd., Watertown 72, Mass.
Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
Kemite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Modelcraft Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
Nems-Clarke, Inc., Silver Spring, Md.
Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W. 3, England.

PHOTOGRAPHIC MATERIALS—Films and Papers

For Recording Instruments

du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Delaware.
Eastman Kodak Co., 343 State St., Rochester 4, N. Y.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.

HUNT CO., PHILIP A., Palisades Park, N. J. ADV. PG. 602.
Peerless Photo Products, Inc., Shoreham, N. Y.

PHOTOGRAPHIC MATERIALS—Spectrographic Instruments

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
Eastman Kodak Co., 343 State St., Rochester 4, N. Y.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
HUNT CO., PHILIP A., Palisades Park, N. J. ADV. PG. 602.

PHOTOGRAPHIC MATERIALS—X-Ray Films

du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Delaware.
Eastman Kodak Co., 343 State St., Rochester 4, N. Y.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
HUNT CO., PHILIP A., Palisades Park, N. J. ADV. PG. 602.
X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

PHOTOMETERS

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
Gardner Lab., Inc., 4723 Elm St., Bethesda 14, Md.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Ultrasonic Engineering Co., 2402 Second St., Peru, Ill.
Zoomar, Inc., Glen Cove, N. Y.

PHOTOTUBES AND PHOTOCELLS

See TUBES

PICKUP UNITS—Mobile Television

DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.

PICKUPS—Crystal

See CRYSTAL CARTRIDGES

PICKUPS—Industrial

Dynapar Corp., 5150 Church St., Skokie, Ill.
Kistler Instrument Corp., 15 Webster St., North Tonawanda, N. Y.
Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Texas Division, Brush Electronics Co., 3732 Westheimer Rd., Houston 6, Texas.

PICKUPS—Magnetic

A. P. W. Co., 72 W. Main St., Rockaway, N. J.
Audak Co., 500 Fifth Ave., New York, N. Y.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
Chesapeake Instrument Corp., Shadyside, Md.
Dynapar Corp., 5150 Church St., Skokie, Ill.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
Electro-Tech Pacific, Santa Barbara Airport, P. O. Box 455, Goleta, Calif.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.
Magnadyne Co., 84 S. Water St., Port Chester, N. Y.
North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 64, Calif.
PICKERING & CO., 309 Woods Ave., Oceanside, N. Y. ADV. PG. 617.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
Recoton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

PICKUPS—Photoelectric

BAIRD-ATOMIC INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 546.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
Machinery Electrification, Inc., Northboro, Mass.
Magnuson Engineers, Inc., 509 Emory St., San Jose 10, Calif.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Optron Corp., 3526 State St., Santa Barbara, Calif.
Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

PICKUPS—Quartz Crystal

Birmingham Sound Reproducers, Ltd., Monarch Works, Old Hill, Powke Lane, Staffs, England.
Chesapeake Instrument Corp., Shadyside, Md.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
Kistler Instrument Corp., 15 Webster St., North Tonawanda, N. Y.

PICKUPS—Transcription and Phonograph

Astatic Corporation, The, Conneaut, Ohio.
Audak Co., 500 Fifth Ave., New York, N. Y.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Gray Research & Development Co., Inc., 685 Hillard St., Manchester, Conn.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
INTERSEARCH, INC., 7 Arcadia Place, Cincinnati 8, Ohio. ADV. PG. 480.
Lesla, Via Bergamo 21, Milan, Italy.
Magnadyne Co., 84 S. Water St., Port Chester, N. Y.
Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 64, Calif.
PICKERING & CO., 309 Woods Ave., Oceanside, N. Y. ADV. PG. 617.
Presto Recording Corp., P. O. Box 500, Paramus, N. J.
Shure Brothers, Inc., 246 Hartrey Ave., Evanston, Ill.
Weathers Industries, 66 E. Gloucester Pike, Burlington, N. J.
Webster Electric Co., 1900 Clark St., Racine, Wis.

PILOT LIGHTS

See LIGHTS—Dial, Panel and Pilot

PILOT LIGHT ASSEMBLIES

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
Aeronautical Electric Co., 5656 Northwest Highway, Chicago 30, Ill.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 567.
Alden Systems, Inc., Alden Research Center, Westboro, Mass.
Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
DIALIGHT CORPORATION, 60 Stewart Ave., Brooklyn 37, N. Y. ADV. PG. 120.
Drake Mfg. Co., 1713 W. Hubbard St., Chicago 22, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
Hetherington, Inc., Sharon Hill, Pa.
Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
Marco Industries Co., 207 S. Helena St., Anaheim, Calif.
Micarta Fabricators, Inc., 5412 N. Clark, Chicago 40, Ill.
Molex Products Co., 9515 Southview Ave., Brookfield, Ill.
Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.
Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
Smith Mfg. Co., J. & H., Little Britain Rd., Newburgh, N. Y.
Tingso Co., 1461 W. Grand Ave., Chicago 22, Ill.
Walco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

PILOTS—Automatic

Autoscrew Co., 216-22 W. 18th St., New York, N. Y.
Collins Radio Co., Cedar Rapids, Iowa.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 333-336.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

PINS—Tubular

American Brass Co., 414 Meadow St., Waterbury 20, Conn.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 615.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.

PITCH

See INSULATING COMPOUNDS

PLASTIC INSULATION PARTS

See INSULATION PARTS—Plastic Insulation Parts

PLASTIC MATERIALS

Allyls

American Cyanamid Co., 38 Rockefeller Plaza, New York 20, N. Y.
Cast Optics Corp., 123-125 Newman St., Hackensack, N. J.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Laminated Sheet Products Corp., 449 Neponset St., P.O. Box 390, Norwood, Mass.
Louis Laboratories, 1947 Broadway, New York 23, N. Y.
Ohio-Apex Div., Food Machinery & Chemical Corp., Nitro, W. Va.

Cellulose Acetate

Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
Celanese Corp. of America, Plastics Div., 290 Ferry St., Newark 5, N. J.
du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Delaware.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
Eastman Kodak Co., 343 State St., Rochester 4, N. Y.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Gering Products, Inc., N. Seventh St., at Monroe Ave., Kenilworth, N. J.
Hercules Powder Co., Inc., 900 Market St., Wilmington 99, Del.
Laminated Sheet Products Corp., 449 Neponset St., P.O. Box 390, Norwood, Mass.
Monsanto Chemical Co., Plastics Div., Springfield, Mass.
Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
Printloid, Inc., 93 Mercer St., New York 12, N. Y.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.

Cellulose Acetate Butyrate

Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
Eastman Kodak Co., 343 State St., Rochester 4, N. Y.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Fidelity Chemical Products Corp., 472 Freilighuysen Ave., Newark, N. J.
Gering Products, Inc., N. Seventh St. at Monroe Ave., Kenilworth, N. J.
Laminated Sheet Products Corp., 449 Neponset St., P.O. Box 390, Norwood, Mass.
Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
Printloid, Inc., 93 Mercer St., New York 12, N. Y.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.

Cellulose Nitrate

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
Hercules Powder Co., Inc., 900 Market St., Wilmington 99, Delaware.
Laminated Sheet Products Corp., 449 Neponset St., P.O. Box 390, Norwood, Mass.
Monsanto Chemical Co., Plastics Div., Springfield, Mass.
Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.

Epoxy Resins

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
Arles Laboratories, Inc., 45-33 Davis St., Long Island City 1, N. Y.

Armstrong Products Co., P.O. Box 1-EB, Warsaw, Ind.
Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
Bomyte Co., The, Green St., Silverdale, Pa.
Borden Co., The, Chemical Div., 350 Madison Ave., New York 17, N. Y.
Ciba Co., Inc., Plastics Div., Kimberton, Pa.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
Ellanar Chemical Co., 2308 Oakton St., Evanston, Ill.
Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
Enjay Inc., 15 W. 51st St., New York 20, N. Y.
Epoxy Products, Inc., 137 Coit St., Irvington, N. J.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
Furane Plastics, Inc., 4516 Brazil St., Los Angeles 39, Calif.
Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J.
Laminated Sheet Products Corp., 449 Neponset St., P.O. Box 390, Norwood, Mass.
Louis Laboratories, 1947 Broadway, New York 23, N. Y.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Marblette Corp., 37-21 30th St., Long Island City 1, N. Y.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Minnesota Mining & Mfg. Co., 900 Fauquier Ave., St. Paul 6, Minn.
National Engineering Products, Inc., 435 Washington Bldg., Washington 5, D. C.
New England Tape Co., Hudson, Mass.
Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
Plastronics, P. O. Box 96, Winter Hill 45, Mass.
Shell Chemical Corp., 380 Madison Ave., New York 17, N. Y.
Smooth-On Mfg. Co., 572 Communipaw Ave., Jersey City 4, N. J.
Taylor Fibre Co., Norristown, Pa.
Terrell Corp., 19 Lane St., Waltham 54, Mass.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

Ethyl Cellulose

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
American Molding & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
Dow Chemical Co., Midland, Mich.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Gering Products, Inc., N. Seventh St., at Monroe Ave., Kenilworth, N. J.
Hercules Powder Co., Inc., 900 Market St., Wilmington 99, Del.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
Printloid, Inc., 93 Mercer St., New York 12, N. Y.

Melamine Formaldehyde

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
American Cyanamid Co., 38 Rockefeller Plaza, New York 20, N. Y.
Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Bomyte Co., The, Green St., Silverdale, Pa.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
Franklin-Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Monsanto Chemical Co., Plastics Div., Springfield, Mass.
Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
Synthane Corp., Oaks, Pa.
Taylor Fibre Co., Norristown, Pa.
Willson Camera Co., Inc., 1395 Lawrence Rd., Haver-town, Pa.

Methyl Methacrylate

Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.

American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
Cast Optics Corp., 123-125 Newman St., Hackensack, N. J.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Franklin-Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
Gering Products, Inc., N. Seventh St. at Monroe Ave., Kenilworth, N. J.
Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Printloid, Inc., 93 Mercer St., New York 12, N. Y.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.

Nylon

See **INSULATING MATERIALS**

Phenol Formaldehyde—(Phenolics)

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Bomyte Co., The, Green St., Silverdale, Pa.
Borden Co., The, Chemical Div., 350 S. Madison Ave., New York 17, N. Y.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
Durez Plastics Div. Hooker Electrochemical Co., 1921 Walck Rd., North Tonawanda, N. Y.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
General Electric Co., Chemical Materials Dept., Pittsfield, Mass.
Illumitronic Engineering, 680 E. Taylor, Sunnyvale, Calif.
Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Marblette Corp., 37-21 30th St., Long Island City 1, N. Y.
Monsanto Chemical Co., Plastics Div., Springfield, Mass.
Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
NEW ENGLAND LAMINATES CO., INC., P. O. Box 43, 481 Canal St., Stamford, Conn. ADV. PG. 648.
PACIFIC MOULDED PRODUCTS, 905 E. 59th St., Los Angeles, Calif. ADV. PG. 462.
Plastics Engineering Co., 1607 Geale Ave., Sheboygan, Wis.
Printloid, Inc., 93 Mercer St., New York 12, N. Y.
Rogers Corp., Goodyear, Conn.
Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Synthane Corp., Oaks, Pa.
Taylor Fibre Co., Norristown, Pa.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.
Wilmington Fibre Specialty Co., New Castle, Del.

Polyethylene

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
Catalin Corp. of America, 1 Park Ave., New York 16, N. Y.
Celanese Corp. of America, Plastics Div., 290 Ferry St., Newark 5, N. J.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
Dow Chemical Co., Midland, Mich.
du Pont de Nemours & Co., Inc., E. I. Wilmington 98, Del.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Enjay Inc., 15 W. 51st St., New York 20, N. Y.
Gering Products, Inc., N. Seventh St. at Monroe Ave., Kenilworth, N. J.
Hercules Powder Co., Inc., 900 Market St., Wilmington 99, Del.
Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J.

Koppers Co., Inc., Koppers Bldg., Pittsburgh 19, Pa., Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Monsanto Chemical Co., Plastics Div., Springfield, Mass.
Polyken Sales Div. of The Kendall Co., 309 W. Jackson Blvd., Chicago 6, Ill.
Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.

Polystyrene

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
Catalin Corp. of America, 1 Park Ave., New York 16, N. Y.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
Dow Chemical Co., Midland, Mich.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Enjay Inc., 15 W. 51st St., New York 20, N. Y.
Gering Products, Inc., N. Seventh St. at Monroe Ave., Kenilworth, N. J.
Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J.
Koppers Co., Inc., Koppers Bldg., Pittsburgh 19, Pa.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Louis Laboratories, 1947 Broadway, New York 23, N. Y.
Monsanto Chemical Co., Plastics Div., Springfield, Mass.
Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
Printloid, Inc., 93 Mercer St., New York 12, N. Y.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.

Polytrifluorochlorethylene

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
BAKER & ADAMSON PRODUCTS, GENERAL CHEMICAL DIV. OF ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. ADV. PG. 363.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J.
Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 694.
Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.

Tetrafluoroethylene (Teflon)

Rods—Sheets—Tubing

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
American Felt Co., Glenville, Conn.
American Mica Insulation Co., Manassquan, N. J.
Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
Bonney Mfg. Corp., 339 Auburn St., Auburndale, Mass.
Chemplast Inc., 3 Central Ave., East Newark, N. J.
CONTINENTAL-DIAMOND FIBRE CORP., Newark 100, Delaware. ADV. PG. 345-348.
Crane Packing Co., 6402 Oakton St., Morton Grove, Ill.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
DILETRIX CORP., Allen Blvd. & Grant Ave., Farmingdale, N. Y. ADV. PG. 616.
Dixon Corporation, Bristol, R. I.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.

ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pennsauken, N. J.
Ethylene Chemical Corp., 245 Broad St., Summit, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Halogen Insulator & Seal Corp., 10121 Franklin Ave., Franklin Park, Ill.
Haves Industries, Inc., 900 Greenbank Rd., Wilmington 8, Del.
Ilumitronic Engineering, 680 E. Taylor, Sunnyvale, Calif.
Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J.
Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Minnesota Mining & Mfg. Co., 900 Fauquier Ave., St. Paul 6, Minn.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 694.
Rogers Corp., Goodyear, Conn.
SEALCTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 484.
Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
Sparta Mfg. Co., Div. of U. S. Ceramic Tile Co., Dover, Ohio.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
Tri-Point Plastics, Inc., 177 I.U. Willets Rd., Albertson, N. Y.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.

Tetrafluoroethylene Resin (Aqueous Dispersions, Molding Powders)

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
Dixon Corp., Bristol, R. I.
du Pont de Nemours & Co., Inc. E. I., Wilmington 98, Del.
MAIGNE CO., O. J., 321 Pearl St., New York 38, N. Y. ADV. PG. 679.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.

Urea Formaldehyde

American Cyanamid Co., 38 Rockefeller Plaza, New York 20, N. Y.
Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Borden Co., The, Chemical Div., 350 Madison Ave., New York 17, N. Y.
Monsanto Chemical Co., Plastics Div., Springfield, Mass.

Vinyl

American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
Applied Resins Corp., 304 Oration St., Newark 4, N. J.
Auburn Button Works, Inc., Auburn, N. Y.
Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
Borden Co., The, Chemical Div., 350 Madison Ave., New York 17, N. Y.
BORDEN CO., RESINITE DEPT., Box 1589, Santa Barbara, Calif. ADV. PG. 604.
Cudner & O'Connor Co., 4035 W. Kinzie Ave., Chicago 24, Ill.
Dow Chemical Co., Midland, Mich.
du Pont de Nemours & Co., Inc. E. I., Wilmington 98, Del.
General Tire & Rubber Co., The, Akron, Ohio.
Gering Products, Inc., N. Seventh St. at Monroe Ave., Kenilworth, N. J.
Goodrich Chemical Co., B. F., 3135 Euclid Ave., Cleveland 15, Ohio.
Goodrich Industrial Products Co., B. F., A Div. of The B. F. Goodrich Co., Plastic Products, Marietta, Ohio.
Goodyear Tire & Rubber Co., Chemical Div., 1144 E. Market St., Akron 16, Ohio.
Louis Laboratories, 1947 Broadway, New York 23, N. Y.
Monsanto Chemical Co., Plastics Div., Springfield, Mass.
Nopco Chemical Co., Plastics Div., Harrison, N. J.
Plastronics, P. O. Box 96, Winter Hill 45, Mass.
Resin Industries, P. O. Box 1589, Santa Barbara, Calif.
Technicraft Co., 1156 Commonwealth Ave., Boston 34, Mass.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

PLASTICS—Vacuum Formed

Beecher Plastics Co., Portland, Ore.

D & R Plastic Welders Inc., Hazardville, Conn.
Kerco Products, Hastings, Neb.
Novelty Bias Binding Co., Plastics Div., Chelsea, Mass.
Pelican Plastics, Inc., Homer, La.
Plasti-Chem Corp., 5725 S. Dixie Highway, Miami 43, Fla.

PLATES—Instruction

Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
Atlantic Engravers, Inc., 52 Ocean Ave., Amityville, N. Y.
Automatic Processing Corp., 1335 N. Wells St., Chicago, Ill.
Beck's Inc., 298-300 E. Fifth St., Saint Paul 1, Minn.
Chart-Pak, Inc., Leeds, Mass.
Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Croname, Inc., 1747 Grace St., Chicago 13, Ill.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.
Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.
Industrial Engravers, Inc., 2212 McDonald Ave., Brooklyn 23, N. Y.
Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.
Matthews & Co., James H., 3942 Forbes St., Pittsburgh 13, Pa.
Mica Insulator Co., Schenectady 1, N. Y.
NORTH SHORE NAMEPLATE, INC., 214-27 Northern Blvd., Bayside 61, N. Y. ADV. PG. 486.
Park Nameplate Co., Inc., 34-10 Linden Place, Flushing 54, N. Y.
Plasteck, Inc., Poteau, Okla.
Photo Chemical Products, Inc., 999A Stewart Ave., Garden City, N. Y.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Sillicocks-Miller Co., Maplewood, N. J.
Techniques, Inc., 52 Jackson Ave., Hackensack, N. J.
U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.
Wilson Camera Co., Inc., 1395 Lawrence Road, Haver- town, Pa.

PLATES—Metal or Plastic

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
Automatic Processing Corp., 1335 N. Wells St., Chicago, Ill.
Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.
Hopp Press Inc., 460 W. 34th St., New York, N. Y.
Industrial Engravers, Inc., 2212 McDonald Ave., Brooklyn 23, N. Y.
Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.
Laminated Sheet Products Corp., 449 Neponset St., P. O. 390, Norwood, Mass.
Matthews & Co., James H., 3942 Forbes St., Pittsburgh 13, Pa.
Mica Insulator Co., Schenectady 1, N. Y.
Molding Corp., of America, 40 Church St., Pawtucket, R. I.
NEW HERMES ENGRAVING MACHINE CO., 13-19 University Place, New York 3, N. Y. ADV. PG. 687.
Printfold, Inc., 93 Mercer St., New York 12, N. Y.
Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.
Sheffco Mfg. Co., Grand & Ruby Aves., Palisades Park, N. J.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
Sillicocks-Miller Co., Maplewood, N. J.
Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
Taylor Fibre Co., Norristown, Pa.
Techniques, Inc., 52 Jackson Ave., Hackensack, N. J.

U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.
Wilson Camera Co., Inc., 1395 Lawrence Rd., Haver- town, Pa.

PLATES—NAME—Metal or Plastic

Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
American Laubscher Corp., 250 W. 57th St., Fish Bldg., New York 19, N. Y.
Atlantic Engravers, Inc., 52 Ocean Ave., Amityville, N. Y.
Automatic Processing Corp., 1335 N. Wells St., Chicago, Ill.
Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
Chart Optics Corp., 123-125 Newman St., Hackensack, N. J.
Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Croname, Inc., 1747 Grace St., Chicago 13, Ill.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.
Fairfield Engineering Corp., 934 Hope St., Springfield, Conn.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
Fort Hill Plastic Letters Corp., 40 Hanover St., Boston, Mass.
Globe Electrical Mfg. Co., 1729 W. 134th St., Gardena, Calif.
Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.
Hepp Press, Inc., 460 W. 34th St., New York, N. Y.
Industrial Engravers, Inc., 2212 McDonald Ave., Brooklyn 23, N. Y.
Jodee Plastics Corp., 213 Shepherd Ave., Brooklyn 8, N. Y.
Kell Engineering Products Co., 6833 Manchester, St. Louis, Mo.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.
LEYSE ALUMINUM CO., Kenwaunee, Wis. ADV. PG. 452.
Matthews & Co., James H., 3942 Forbes St., Pittsburgh 13, Pa.
Mica Insulator Co., Schenectady 1, N. Y.
MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 522.
MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.
New England Etching & Plating Co., 25 Spring St., Holyoke, Mass.
NEW HERMES ENGRAVING MACHINE CO., 13-19 University Place, New York 3, N. Y. ADV. PG. 687.
NORTH SHORE NAMEPLATE, INC., 214-27 Northern Blvd., Bayside 61, N. Y. ADV. PG. 486.
Panelgraphic Corp., P. O. Box 254, Caldwell, N. J.
Park Nameplate Co., Inc., 34-10 Linden Place, Flushing 54, N. Y.
Pfeger Products, 3901 W. 54th St., Los Angeles, Calif.
Photo Chemical Products, Inc., 999A Stewart Ave., Garden City, N. Y.
Ports Mfg. Co., 3265 E. Belmont Ave., Fresno 2, Calif.
Printfold, Inc., 93 Mercer St., New York 12, N. Y.
Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Sheffco Mfg. Co., Grand & Ruby Aves., Palisades Park, N. J.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
Sillicocks-Miller Co., Maplewood, N. J.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
Sun Dial Corp., E. Passaic Ave., Caldwell, N. J.
Techniques, Inc., 52 Jackson Ave., Hackensack, N. J.
U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.
Vandercook & Sons, Inc., 3601 W. Touhy Ave., Chicago 45, Ill.
Waldom Electronics Inc., 4625 W. 53rd St., Chicago 32, Ill.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.
WESTLINE PRODUCTS DIV. OF WESTERN LITHOGRAPH CO., 600 E. Second St., Los Angeles 54, Calif. ADV. PG. 470.
Wilson Camera Co., Inc., 1395 Lawrence Rd., Haver- town, Pa.

PLATES—Phosphor

See PARTS for COLOR TV TUBES

PLATES—Plastic Lighting

ACKERMAN ENGRAVERS, 458 Broadway, New York, N. Y. ADV. PG. 642.
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
 Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
BODNAR INDUSTRIES, INC., 238 Huguenot St., New Rochelle, N. Y. ADV. PG. 691.
 Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
 Cast Optics Corp., 123-125 Newman St., Hackensack, N. J.
 Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
 Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
 Hopp Press, Inc., 460 W. 34th St., New York, N. Y.
 Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. 390, Norwood, Mass.
 Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 Plasteck, Inc., Poteau, Okla.
 Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
U.S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.

PLATING—Metal on Plastic

Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
COHAN-EPNER CO., INC., 142 W. 14th St., New York 11, N. Y. ADV. PG. 668.
 Electrochemical Industries, Inc., 35 Armory St., Worcester, Mass.
 General American Transportation Corp., Kanigen Div., 135 S. La Salle St., Chicago, Ill.
 Harper-Leader, Inc., 1046 S. Main St., Waterbury 20, Conn.
 Henry and Miller Industries Inc., 675 Garfield Ave., Jersey City 5, N. J.
 Keil Engineering Products Co., 6833 Manchester, St. Louis, Mo.
 Metalplast Co., Inc., 34-51 56th St., Woodside, N. Y.
MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Poinsettia Co., Inc., 112 Cedar Ave., Pitman 6, N. J.
 Premier Research Laboratories, Inc., 83 Seventh Ave., New York 11, N. Y.
 Printed Electronics Corp., 7 North Ave., Natick, Mass.
 Sibley Co., The, Haddam, Conn.

PLATING—Precious Metal

Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
 Anderson Associates, H. V., 239 Park Ave., Berkeley Heights, N. J.
 Atlantic Engravers, Inc., 52 Ocean Ave., Amityville, N. Y.
 Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
BAKER & CO., INC., 113 Astor St., Newark 5, N. J. ADV. PG. 313.
 Bart Mfg. Corp., 227 Main St., Belleville, N. J.
 Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
BUREAU OF ENGRAVING, INC., INDUSTRIAL DIV., 500 S. Fourth St., Minneapolis 15, Minn. ADV. PG. 633.
COHAN-EPNER CO., INC., 142 W. 14th St., New York 11, N. Y. ADV. PG. 668.
 Davis-K Products Co., 135 W. 29th St., New York 1, N. Y.
 Electrochemical Industries, Inc., 35 Armory St., Worcester, Mass.
 Electro-Coatings, Inc., 1662 W. Fullerton Ave., Chicago 14, Ill.
 Garprey Platers, Inc., 17-19 Bartlett St., Worcester 8, Mass.
 Graphik-Circuits Div., of Cinch Mfg. Corp., 200 S. Turnbull Canyon Rd., La Puente, Calif.
 Harper-Leader, Inc., 1046 S. Main St., Waterbury 20, Conn.
 Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City, N. J.
 Indium Corp., of America, 1676 Lincoln Ave., Utica 4, N. Y.
 M-W Laboratories, 1824 N. Milwaukee Ave., Chicago 27, Ill.
MAKEPEACE CO., D. E. DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
MERIT PLATING CO., 218 E. 141st St., New York 51, N. Y. ADV. PG. 660.
MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 North American Research Labs., Inc., 725 Lexington Ave., Kenilworth, N. J.

Precision Electroplating Co., 519 S. Oakley Blvd., Chicago 12, Ill.
 Precious Metal Platers, The, P. O. Box 228, Fairfield Conn.
 Printed Electronics Corp., 7 North Ave., Natick, Mass.
 Sibley Co., The, Haddam, Conn.
 Slip Ring Co. of America, 3612-3622 W. Jefferson Blvd., Los Angeles 21, Calif.
 Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.
 Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia 32, Pa.
 Steel Protection & Chemical Co., Inc., Mooresville, Ind.
 Zacharias Co., Robert, 519 S. Oakley Blvd., Chicago, Ill.

PLATING—Tin Zinc

Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
 Croname, Inc., 1747 Grace St., Chicago 13, Ill.
 Graphik-Circuits Div. of Cinch Mfg. Corp., 200 S. Turnbull Canyon Rd., La Puente, Calif.
 Henry & Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
 Metal & Thermit Corp., Rahway, N. J.
 Poinsettia Co., Inc., 112 Cedar Ave., Pitman 6, N. J.
 Somers Brass Co., 94 Baldwin Ave., Waterbury Conn.
 Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia 32, Pa.
 Steel Protection & Chemical Co., Mooresville, Ind.

PLUG-IN HOUSINGS

See HOUSINGS—Plug-In

PLUGS

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 567.
 Allen Mfg. Co., Hartford 2, Conn.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
AUTOMATIC & PRECISION MFG. CO., 252 Hawthorne Ave., Yonkers 5, N. Y. ADV. PG. 586.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 615.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
CANNON ELECTRIC CO., 3208 Humboldt St., Los Angeles 31, Calif. ADV. PG. 44.
 Carter Parts Co., 3401 Madison, Skokie, Ill.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
 Clover Industries, Inc., 584 Young St., Tonawanda, N. Y.
COAXIAL CONNECTOR CO., INC., 37 North 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Colman Tool & Machine Co., P. O. Box 7026, Amarillo, Texas.
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
 Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 409.
 Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
INTERSTATE ELECTRONICS, INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 462.
 Irwin Products, 6312 N. Artesian Ave., Chicago 45, Ill.
 Javex, P. O. Box 646, Redlands, Calif.
 Johnson Co., E. F., Waseca, Minn.
JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
 Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.
 Lesa, Via Bergamo 21, Milan, Italy.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Molex Products Co., 9515 Southview Ave., Brookfield, Ill.
NATIONAL TEL-TRONICS CORP., 35 St. Casimirs Ave., Yonkers, N. Y. ADV. PG. 642.
 North Electric Co., 553 S. Market St., Galion, Ohio.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
 Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
POMONA ELECTRONICS CO., INC., 1126 W. Fifth Ave., Pomona, Calif. ADV. PG. 314.

Remler Company, 2101 Bryant St., San Francisco 10, Calif.
 Richards Electrocraft, Inc., 3743 N. Kedzie Ave., Chicago 18, Ill.
 Rofan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
 Royal Electric Corp., Pawtucket, R. I.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 619.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Telex, Inc., Telex Park, St. Paul 1, Minn.
 Trimm, Inc., 400 W. Lake St., Libertyville, Ill.
UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 65.
U. S. COMPONENTS, INC., 454 E. 148th St., New York 55, N. Y. ADV. PG. 359.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 476.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
 Whitney Blake Co., New Haven 14, Conn.
 Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J.

PLUGS—Telephone

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 567.
 Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 615.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Carter Parts Co., 3401 Madison, Skokie, Ill.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Decatur Electronics Industries Corp., 203 Ornicco Drive, Brightwater, N. Y.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 596.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 448.
 Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.
 Lesa, Via Bergamo 21, Milan, Italy.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 North Electric Co., 553 S. Market St., Galion, Ohio.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Richards Electrocraft, Inc., 3743 N. Kedzie Ave., Chicago 18, Ill.
 Rofan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 619.
 Trimm, Inc., 400 W. Lake St., Libertyville, Ill.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
 Waltham Horological Corp., 395 Lynnway, Lynn, Mass.

PLUGS—Terminal

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
 Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
ANTON ELECTRONIC LABS, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 615.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
COAXIAL CONNECTOR CO., INC., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Colman Tool & Machine Co., P. O. Box 7026, Amarillo, Texas.
ELECTRONIC PLASTICS CORP., 675 Barbey St., Brooklyn 7, N. Y. ADV. PG. 663.
 Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 409.
Javex, P. O. Box 646, Redlands, Calif.
Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Molex Products Co., 9515 Southview Ave., Brookfield, Ill.
NATIONAL TEL-TRONICS CORP., 35 St. Casimir Ave., Yonkers, N. Y. ADV. PG. 642.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
Rofan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Royal Electric Corp., Pawtucket, R. I.
SEALLECTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 484.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
States Co., 19 New Park Ave., Hartford 6, Conn.
Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
U. S. COMPONENTS, INC., 454 E. 148th St., New York 55, N. Y. ADV. PG. 359.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.

POINTERS—Die

DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
Printloid, Inc., 93 Mercer St., New York 12, N. Y.
Rofan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
Sillicocks-Miller Co., Maplewood, N. J.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.
U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

POSITIONINGSee **CONTROLS—INDICATORS****POSTS—Binding**

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
BEAR CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 615.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
Eastern Specialty Co., Philadelphia 40, Pa.
Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa.
ELCO CORP., "M" St. below Erie Ave., Philadelphia 24, Pa. ADV. PG. 284.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GRAYHILL, INC., 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 493.
GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
Johnson Co., E. F., Waseca, Minn.
MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. ADV. PG. 252.
Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Mass.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.

Molex Products Co., 9515 Southview Ave., Brookfield, Ill.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
North Electric Co., 553 S. Market St., Galion, Ohio.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
Remler Company, 2101 Bryant St., San Francisco 10, Calif.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
SUPERIOR ELECTRIC CO., THE, 5000 Bradley Ave., Bristol, Conn. ADV. PG. 96-99.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.

POTENTIOMETERS

ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 487.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BOURNS LABORATORIES, INC., 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 444.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Carter Mfg. Corp., 23 Washington St. Hudson, Mass.
Carter Parts Co., 3401 Madison, Skokie, Ill.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardsley Ave., Elkhart, Ind. ADV. PG. 223.
CINEMA ENGINEERING DIV., AEROVOX CORP., 1100 Chestnut St., Burbank, Calif. ADV. PG. 688.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
COMPUTER INSTRUMENTS CORP., 92 Madison Ave., Hempstead, N. Y. ADV. PG. 648.
Corbett Science Laboratories, F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.
DEJUR-AMSCO CORP., Northern Blvd., at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
Dwyer Engineering, 1 Winslow St., Redwood City, Calif.
Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
Electro-Measurements, Inc., 7524 S. W. Macadam, Portland 1, Ore.
Electromath Corp., 190 Henry St., Stamford, Conn.
Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
FAIRCHILD CONTROLS CORP., COMPONENTS DIV., 225 Park Ave., Hicksville, N. Y. ADV. PG. 364.
Ford Engineering Co., Inc., 129 E. "A" St., Upland, Calif.
Foxboro Co., The, Foxboro, Mass.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
Helipot Corp., Newport Beach, Calif.
HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth 7, Texas. ADV. PG. 524.
Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
Leeds & Northrup Co., 4970 Stanton Ave., Philadelphia 44, Pa.
Les, Via Bergamo 21, Milan, Italy.
Litton Industries, Beverly Hills, Calif.
Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Markite Corp., 155 Waverly Place, New York 14, N. Y.
Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill.
Meridian, Inc., 880 Main St., Stamford, Conn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
Osborne Electric Co., 712 S. E. Hawthorne, Portland 14, Ore.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
Perkin-Elmer Corp., Main Ave., Norwalk, Conn.

Precision Line, Inc., 63 Main St., Maynard, Mass.
Rattray & Co., Inc., George, 116-08 Myrtle Ave., Richmond Hill, N. Y.
Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
San Fernando Electric Mfg. Co., 1509 First St., San Fernando, Calif.
Servonic Instruments, Inc., 1143 S. Fair Oaks Ave., Pasadena 2, Calif.
Servotrol Co., 114 W. Illinois St., Chicago 10, Ill.
Spectrol Div. of Carrier Corp., 1704 S. Del Mar, San Gabriel, Calif.
TECHNOLOGY INSTRUMENT CORP., 533 Main St., Acton, Mass. ADV. PG. 104, 105.
Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
WARD LEONARD ELECTRIC CO., 31 South St., Mt. Vernon, N. Y. ADV. PG. 408.
WATERS MANUFACTURING INC., Boston Post Rd., Wayland Mass. ADV. PG. 258, 259.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

POTENTIOMETERS—Absolute Pressure

BOURNS LABORATORIES, INC., 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 444.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
FAIRCHILD CONTROLS CORP., COMPONENTS DIV., 225 Park Ave., Hicksville, N. Y. ADV. PG. 364.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
Meridian, Inc., 880 Main St., Stamford, Conn.
Servonic Instruments, Inc., 1143 S. Fair Oaks Ave., Pasadena 2, Calif.
TRANS-SONICS, INC., P. O. Box 328, Lexington 73, Mass. ADV. PG. 525.

POTENTIOMETERS—Differential Pressure

BOURNS LABORATORIES, INC., 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 444.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
FAIRCHILD CONTROLS CORP., COMPONENTS DIV., 225 Park Ave., Hicksville, N. Y. ADV. PG. 364.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
Meridian, Inc., 880 Main St., Stamford, Conn.
Servonic Instruments, Inc., 1143 S. Fair Oaks Ave., Pasadena 2, Calif.
TRANS-SONICS, INC., P. O. Box 328, Lexington 73, Mass. ADV. PG. 525.

POTENTIOMETERS—Induction

American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
Diehl Manufacturing Co., Somerville, N. J.
Helipot Corp., Newport Beach, Calif.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
Meridian, Inc., 880 Main St., Stamford, Conn.
Muirhead & Co., Ltd., Beckenham, Kent, England.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.

POTENTIOMETERS—Initial Condition

Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
Meridian, Inc., 880 Main St., Stamford, Conn.

POTENTIOMETERS—Linear & Non-Linear,

Precision Carbon Film
BOURNS LABORATORIES, INC., 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 444.
British Radio Electronics, Ltd., 1833 Jefferson Pl., N.W., Washington 6, D. C.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
COMPUTER INSTRUMENTS CORP., 92 Madison Ave., Hempstead, N. Y. ADV. PG. 648.
Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.
Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
Electromath Corp., 190 Henry St., Stamford, Conn.
Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
Meridian, Inc., 880 Main St., Stamford, Conn.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.
TECHNOLOGY INSTRUMENT CORP., 533 Main St., Acton, Mass. ADV. PG. 104, 105.

POTENTIOMETERS—Linear & Non-Linear,**Precision Wire Wound**

ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 487.
Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
Borg Equipment Division, The George W. Borg Corp., Jamesville, Wis.
BOURNS LABORATORIES, INC., 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 444.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
British Radio Electronics, Ltd., 1833 Jefferson Pl., N.W., Washington 6, D. C.
Carter Mfg. Corp., 23 Washington St., Hudson, Mass.
Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
CIRCUIT INSTRUMENTS, INC., 2801 Anvil St. North, P.O. Box 1438, St. Petersburg, Fla. ADV. PG. 193.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.
DE JUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
Electro-Measurements, Inc., 7524 S.W. Macadam, Portland 1, Ore.
ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. ADV. PG. 584.
Electromath Corp., 190 Henry St., Stamford, Conn.
FAIRCHILD CONTROLS CORP., COMPONENTS DIV., 225 Park Ave., Hicksville, N. Y. ADV. PG. 364.
Ford Engineering Co., 129 East "A" St., Upland, Calif.
GAMEWELL CO., THE, 1238 Chestnut St., Newton Upper Falls 64, Mass. ADV. PG. 583.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GIANNINI & CO., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
Helipot Corp., Newport Beach, Calif.
HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth 7, Texas. ADV. PG. 524.
Humphrey, Inc., 2805 Canon St., San Diego 6, Calif.
INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.
Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. ADV. PG. 510.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
Litton Industries of Maryland, Inc., 4910 Calvert Rd., College Park, Md.
Litton Industries, Beverly Hills, Calif.
Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill.
Meridian, Inc., 880 Main St., Stamford, Conn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Muter Co., The, 1255 S. Michigan Ave., Chicago 5, Ill.
Nagor Associates, Inc., Littleton, Mass.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
Osborne Electric Co., 712 S. E. Hawthorne Blvd., Portland 14, Ore.
Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
Paul & Stein Bros., Inc., F. H., 235 Fifth Ave., New York 16, N. Y.
Perkin-Elmer Corp., Main Ave., Norwalk, Conn.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
Precision Line, Inc., 63 Main St., Maynard, Mass.
Rattray & Co., Inc., George, 116-08 Myrtle Ave., Richmond Hill, N. Y.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
Samaris Electronic Corp., 123 Canal St., Shelton, Conn.
San Fernando Electric Mfg. Co., 1509 First St., San Fernando, Calif.
Servonic Instruments, Inc., 1143 S. Fair Oaks Ave., Pasadena 2, Calif.
Servonics, Inc., 822 N. Henry St., Alexandria, Va.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
Specialties, Inc., Skunks Misery Rd., Syosset, N. Y.
Spectrol Div. of Carrier Corp., 1704 S. Del Mar, San Gabriel, Calif.
Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
TECHNOLOGY INSTRUMENT CORP., 533 Main St., Acton, Mass. ADV. PG. 104, 105.

Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
WATERS MANUFACTURING INC., Boston Post Rd., Wayland, Mass. ADV. PG. 258, 259.
Wirt Co., 5221 Greene St., Philadelphia 44, Pa.

POTENTIOMETERS—Portable Instrument

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Electro-Measurements, Inc., 7524 S.W. Macadam, Portland 1, Ore.
Electrovert, Inc., 489 Fifth Ave., New York 117, N. Y.
Fisher Research Lab., Inc., 1961 University Ave., Palo Alto, Calif.
Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GRAY INSTRUMENT CO., 200 E. Church Lane, Philadelphia 44, Pa. ADV. PG. 643.
Julie Research Laboratories, 556 W. 168th St., New York 32, N. Y.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Meridian, Inc., 880 Main St., Stamford, Conn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
Williamson Development Co., Inc., 317 Main St., West Concord, Mass.

POTENTIOMETERS—Precision

ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 487.
American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BORG EQUIPMENT DIVISION, THE GEORGE W. BORG CORP., Jamesville, Wis. ADV. PG. 142.
BOURNS LABORATORIES, INC., 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 444.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
Carter Mfg. Corp., 23 Washington St., Hudson, Mass.
Cedar Engineering, Inc., 5806 W. 36th St., Minneapolis 16, Minn.
Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
COMPUTER INSTRUMENTS CORP., 92 Madison Ave., Hempstead, N. Y. ADV. PG. 648.
Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
Darco Industries, Inc., Gyro Dynamics Div., 2151 E. Rosecrans Ave., El Segundo, Calif.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.
DE JUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
Electro-Measurements, Inc., 7524 S.W. Macadam, Portland 1, Ore.
ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. ADV. PG. 584.
Electromath Corp., 190 Henry St., Stamford, Conn.
Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
FAIRCHILD CONTROLS CORP., COMPONENTS DIV., 225 Park Ave., Hicksville, N. Y. ADV. PG. 364.
Ford Engineering Co., 129 East "A" St., Upland, Calif.
GAMEWELL CO., THE, 1238 Chestnut St., Newton Upper Falls 64, Mass. ADV. PG. 583.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
GRAY INSTRUMENT CO., 200 E. Church Lane, Philadelphia 44, Pa. ADV. PG. 643.

Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
Helipot Corp., Newport Beach, Calif.
HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth 7, Texas. ADV. PG. 524.
Humphrey, Inc., 2805 Canon St., San Diego 6, Calif.
INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.
Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. ADV. PG. 510.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
Litton Industries, Beverly Hills, Calif.
Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Markite Corp., 155 Waverly Place, New York 14, N. Y.
Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill.
Meridian, Inc., 880 Main St., Stamford, Conn.
Minco Products, Inc., 740 Washington Ave., N., Minneapolis 1, Minn.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
Osborne Electric Co., 712 S. E. Hawthorne Blvd., Portland 14, Ore.
Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
Paul & Stein Bros., Inc., F. H., 235 Fifth Ave., New York 16, N. Y.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
Precision Line, Inc., 63 Main St., Maynard, Mass.
Rattray & Co., Inc., George, 116-08 Myrtle Ave., Richmond Hill, N. Y.
Raymond Engineering Laboratory, Inc., Smith St., Middletown, Conn.
Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
San Fernando Electric Mfg. Co., 1509 First St., San Fernando, Calif.
Servonics, Inc., 822 N. Henry St., Alexandria, Va.
Servotrol Co., 114 W. Illinois St., Chicago 10, Ill.
Spectrol Div. of Carrier Corp., 1704 S. Del Mar, San Gabriel, Calif.
Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.
Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
TECHNOLOGY INSTRUMENT CORP., 533 Main St., Acton, Mass. ADV. PG. 104, 105.
Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
WATERS MANUFACTURING INC., Boston Post Rd., Wayland, Mass. ADV. PG. 258, 259.

POTENTIOMETERS—Precision Auto-Transformer
Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
Darco Industries, Inc., Gyro Dynamics Div., 2151 E. Rosecrans Ave., El Segundo, Calif.
GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684.
Meridian, Inc., 880 Main St., Stamford, Conn.
Muirhead & Co., Ltd., Beckenham Kent, England.
Paul & Stein Bros., Inc., F. H., 235 Fifth Ave., New York 16, N. Y.
Perkin-Elmer Corp., The Main Ave., Norwalk, Conn.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24.

POTENTIOMETERS—Recilinear
ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 487.
BOURNS LABORATORIES, INC., 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 444.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Colvin Laboratories, Inc., 364 Glenwood Ave., East Orange, N. J.
COMPUTER INSTRUMENTS CORP., 92 Madison Ave., Hempstead, N. Y. ADV. PG. 648.
Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.
Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
FAIRCHILD CONTROLS CORP., COMPONENTS DIV., 225 Park Ave., Hicksville, N. Y. ADV. PG. 364.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. ADV. PG. 510.

Markite Corp., 153 Waverly Place, New York 14, N. Y.
Meridian, Inc., 880 Main St., Stamford, Conn.
Minco Products, Inc., 740 Washington Ave. N.,
Minneapolis 1, Wis.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St.,
Anaheim, Calif. ADV. PG. 486.
Precision Line, Inc., 63 Main St., Maynard, Mass.
Samarus Electronic Corp., 123 Canal St., Shelton, Conn.
Servonic Instruments, Inc., 1143 S. Fair Oaks Ave.,
Pasadena 2, Calif.
Topp Industries, Inc., 5255 W. 102nd St., Los Angeles
45, Calif.

POTS—Soldering

Acme Electric Heating Co., 1217 Washington St.,
Boston, Mass.
Acoustica Associates, Inc., Shore Rd., Glenwood Landing
2, N. Y.
Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry,
N. J.
Dee Electric Co., 1101 N. Paulina St., Chicago 22, Ill.
EISLER ENGINEERING CO., INC., 751 S. 13th St.,
Newark 3, N. J. ADV. PG. 660.
Electric Soldering Iron Co., W. Elm St., Deep River,
Conn.
GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Vulcan Electric Co., Danvers, Mass.
Waage Electric, Inc., 720 Colfax Ave., Kenilworth, N. J.

POTS AND TANKS—Heating

Acme Electric Heating Co., 1217 Washington St.,
Boston, Mass.
Terrell Corp., 19 Lane St., Waltham 54, Mass.

POWER DIVIDERS

See **MICROWAVE ACCESSORIES**
Dividers, Power

POWER LEVER

See **INDICATORS**

POWER SUPPLIES

1. A-C
2. D-C
3. High Voltage
4. Klystron
- 4a. Magnetic
5. Microwave
6. Regulated
7. Transistor
8. Variable
9. Voltage Regulated

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
2-6.
ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y.
1-2-6-7-8-9. ADV. PG. 378.
Acme Teletronix Div., NEA Service, Inc., W. Third &
Lakeside, Cleveland 13, Ohio. 1-2.
Adler Electronics, Inc., 1 LeFevre Lane, New Rochelle,
N. Y. 1-2-3-4a-6-7-8.
Aerolab Development Co., 330 W. Holly St., Pasadena,
Calif. 2.
Aeronautical Electronics, Inc., Raleigh-Durham Airport,
P. O. Box 6527, Raleigh, N. C. 2.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
1-2-3-6.
Aerovox Corp., Pacific Coast Div., 2724 So. Peck Rd.,
Monrovia, Calif. 2.
AIRCORN INC., 354 Main St., Winthrop 52, Mass. 4.
ADV. PG. 652.
Airmec, Ltd., High Wycombe, Buckinghamshire, England.
4-9.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20,
Md. 1-2-3. ADV. PG. 297-300.
Alco Electronics Mfg. Co., 3 Wolcott Ave., Lawrence,
Mass. 2-6-8-9.
Alcor Electronics Corp., 180 Lafayette St., New York
13, N. Y. 1-2-3-7-9.
**ALDEN ELECTRONIC & IMPULSE RECORDING EQUIP-
MENT CO.**, Box 125, Westboro, Mass. 3-6. ADV.
PG. 566.
Alfred Electronics, 897 Commercial St., Palo Alto, Calif.
2-3-5-6-8-9.
Allegany Instrument Co., Inc., 1091 Wills Mountain,
Cumberland, Md. 2.
Alto Scientific Co., 855 Commercial St., Palo Alto,
Calif. 2-3-4-4a-6-7-8-9.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. 5.
ADV. PG. 412.
American Electronic Labs., Inc., 121 N. 7th St.,
Philadelphia 6, Pa. 2-6-9.
American Electronics, Inc., 655 W. Washington Blvd.,
Los Angeles 15, Calif. 1-2-8.
**AMERICAN MACHINE & FOUNDRY CO., DEFENSE
PRODUCTS GROUP**, 1101 N. Royal St., Alexandria,
Va. 5. ADV. PG. 491.
American Rectifier Corp., 95 Lafayette St., New York
13, N. Y. 8-9.
American Research & Mfg. Corp., 920 Halpine Ave.,
Rockville, Md. 1-2-4a-7.
AMERICAN TELEVISION & RADIO CO., 300 E. Fourth
St., St. Paul 1, Minn. 1-2. ADV. PG. 222.

AMP INC., 2100 Paxton St., Harrisburg, Pa. 3. ADV.
PG. 339.
AMP INC., CHEMICALS & DIELECTRICS DIV., 155
Park St., Elizabethtown, Pa. 3. ADV. PG. 255.
ANTON ELECTRONIC LABS. INC., 1226 Flushing Ave.,
Brooklyn 37, N. Y. 2-3-7-9. ADV. PG. 691.
Applegate & Co., C. J., 1840 24th St., Boulder, Colo.
2-3-6-7-8-9.
Applied Radiation Corp., 1210 Spring Brook Rd., Walnut
Creek, Calif. 3-4.
ARNOLD MAGNETICS CORP., 4613 W. Jefferson Blvd.,
Los Angeles 16, Calif. 2-4a-6-7-9. ADV. PG. 553.
Arnoux Corp., Box 34628, Los Angeles, Calif. 1-2-
4a-6-7-9.
ASSOCIATED SPECIALTIES CO., 1751 Main St., Ore-
field, Pa. 6. ADV. PG. 624.
Atlantic Research Corp., 901 N. Columbus, Alexandria,
Va. 2-6.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Rox-
bury, Mass. 1-2-3-6-7-8-9. ADV. PG. 600.
Avien; Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
1.
Avion Division, ACF Industries, Inc., 11 Park Place,
Paramus, N. J. 4a.
Avionex Electronics Corp., 10855 Vanowen, North Holly-
wood, Calif. 1-2.
Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
2-6.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport
Blvd., Santa Ana, Calif. 3. ADV. PG. 541.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38,
Mass. 1-2-3. ADV. PG. 537.
Barwood Electronics Inc., 921 E. Broadway, Glendale 5,
Calif. 2-6-9.
BEHLMAN ENGINEERING CO., 114 S. Hollywood Way,
Burbank, Calif. 1-8. ADV. PG. 637.
Bendix Aviation Corp., Montrose Div., South Montrose,
Pa. 2.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC.,
Dept. G-13, 2200 Wright Ave., Richmond 3, Calif.
1-2-3. ADV. PG. 73-80.
Berkshire Laboratories, 580 Bank Village, Greenville,
N. H. 6-7-9.
BETA ELECTRIC DIV. OF SORENSON CO., INC., 333
E. 103rd St., New York 23, N. Y. 1-2-3-4-8-9.
ADV. PG. 155, 156.
Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9,
N. J. 2-3-8-9.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold
St., New York 38, N. Y. 9.
Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3,
N. J. 1-2-3-6-7-8-9.
Bone Engineering Corp., 701 W. Broadway, Glendale 4,
Calif. 1-2.
Booth Co., Arthur E., 265 S. Alexandria Ave., Los
Angeles, Calif. 1-2-6-8-9.
BRACKE-SEIB X-RAY CO., INC., 16 Pelham Bay Park-
way, Pelham Manor, N. Y. 1-2-3. ADV. PG. 590.
BROWNING LABORATORIES, INC., Main St., Win-
chester, Mass. 4. ADV. PG. 614.
Buck Engineering Co., Inc., 37-41 Marcy St., Freehold,
N. J. 2.
Buffalo Electronics Corp., 37 Franklin St., Buffalo 2,
N. Y. 1-2-9.
Burroughs Corp., Electronic Instruments Div., 1209 Vine
St., Philadelphia, Pa. 2-6.
CALEDONIA ELECTRONICS & TRANSFORMER CO.,
Caledonia, N. Y. 2-3. ADV. PG. 50.
California Magnetic Control Corp., 11922 Valerio St.,
North Hollywood, Calif. 1-2-3-6-7-9.
California Technical Industries, 1421 Old County Rd.,
Belmont, Calif. 5.
Carol Electronics Corp., 315 W. Stephen St., Martins-
burg, W. Va. 2.
Centra Transformer Co., 910 W. Jackson Blvd., Chicago,
Ill. 2-3.
Century Electric Co., 1806 Pine St., St. Louis 3, Mo.
1-2.
Century Electronics & Instruments, Inc., P. O. Box 6216,
Pine Station, Tulsa 10, Okla. 1-2.
CHASE ELECTRONICS INC., 82-31 51st Ave., Elmhurst,
N. Y. 2-4a-6-7. ADV. PG. 601.
**CHATHAM ELECTRONICS DIV. OF TUNG-SOL ELECTRIC,
INC.**, 630 W. Mt. Pleasant Ave., Livingston, N. J.
6-9. ADV. PG. 393.
CHRISTIE ELECTRIC CORP., 3410 W. 67th St., Los
Angeles 43, Calif. 2-6-9. ADV. PG. 528.
Cinema-Television, Ltd., Worsley Bridge Rd., London
S. E. 26, England. 3-9.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Han-
over & Ridgedale Aves., Morristown, N. J. 2-3-4-5-
6-8-9. ADV. PG. 632.
Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
1-2-4a-6-7-8-9.
Coll Company of America, Inc., 207 Washington St.,
Northvale, N. J. 1-2-3-6-8.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Phila-
delphia 33, Pa. 1-2. ADV. PG. 589.
Colorado Research Corp., 4697 E. Evans Ave., Denver 22,
Colo. 6.
COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicks-
ville, N. Y. 1-2-3-6-8-9. ADV. PG. 532.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd.,
Hickman Mills, Mo. 4a-6-9. ADV. PG. 113-118.
Condenser Products Div., New Haven Clock & Watch
Co., 140 Hamilton St., New Haven, Conn. 2-3-6-8-9.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury,
N. Y. 9.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre
Villa, Pasadena 15, Calif. 2-6.
CORNELL-DUBILIER ELECTRIC CORP., South Plain-
field, N. J. 1-2-9. ADV. PG. 111.

Creative Electronics Corp., 94 Lincoln Ave., Stamford,
Conn. 1-2-3-8.
CUBIC CORP., 575 Kearny Villa Rd., San Diego 11, Calif.
3-4. ADV. PG. 380, 381.
Daystrom Nuclear Div. of Daystrom, Inc., P. O. Box 437,
West Caldwell, N. J. 3.
DEL ELECTRONICS CORP., 521 Homestead Ave., Mt.
Vernon, N. Y. 1-2-3-6-8-9. ADV. PG. 678.
Deltron, Inc., 2905 N. Leithgow St., Philadelphia 33,
Pa. 2-8-9.
Devtron Engineering, 1 Winslow St., Redwood City,
Calif. 2-3-6-8-9.
DOTY ACOUSTICAL ELECTRONIC LABS., INC., 431
Broome St., New York 13, N. Y. 2-8-9. ADV. PG.
676.
Douglas Radio Labs., 176 Norfolk Ave., Boston 19,
Mass. 6.
Dressen-Barnes Corp., 250 N. Vinedo Ave., Pasadena 8,
Calif. 1-2-3-4a-6-7-8-9.
Dresser Electric Co., 942 E. Larned St., Detroit 7,
Mich. 2-6-8.
Dukane Corp., St. Charles, Ill. 2.
DuMont Laboratories, Inc., Allen B., 750 Bloomfield
Ave., Clifton, N. J. 3.
Dunlap Electronics, 764 Ninth St., Des Moines, Iowa. 2.
Dynamic Controls Co., 1955 Massachusetts Ave., Cam-
bridge, Mass. 2-6-8-9.
**DYNAMICS RESEARCH ASSOCIATES DIV. OF UNI-
VERSAL MATCH CORP.**, 472 Paul Ave., Ferguson 21,
Mo. 1-2-4a-6-7. ADV. PG. 649.
EASTERN PRECISION RESISTOR CORP., 675 Barbey
St., Brooklyn, N. Y. 2-4-6-7-8-9. ADV. PG. 451.
Eberline Instrument Division, P. O. Box 279, Santa Fe,
N. M. 6-9.
Eder Engineering Co., The, 219 E. Becher St., Mil-
waukee 2, Wis. 2-3-6-8-9.
Ecor, Inc., 4235 W. North Ave., Chicago 39, Ill. 2-9.
Elcor, Inc., P. O. Box 354, McLean, Va. 2-6-9.
Electric Regulator Corp., Pearl St., Norwalk, Conn. 6-9.
Electro Engineering Products Co., 609 W. Lake St.,
Chicago, Ill. 2.
ELECTRO ENGINEERING WORKS, 401 Preda St., San
Leandro, Calif. 1-2-3-4-8. ADV. PG. 512.
ELECTRO PRODUCTS LAB., 5401 N. Ravenswood Ave.,
Chicago 40, Ill. 2-8. ADV. PG. 629.
Electro-Science Industries, Box 10066 International Air-
port, Los Angeles 45, Calif. 3.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple
Ave., Eatontown, N. J. 1-2-3-4-4a-5-6-7-8-9. ADV.
PG. 556.
Electronic Products Corp., 322 State St., Santa Bar-
bara, Calif. 2-6.
Electronic Research Associates, Inc., 67 E. Centre St.,
Nutley 10, N. J. 1-2-3-6-7-8-9.
ELECTRONICS COMPUTER CORP., 6191 Ridge Ave.,
Philadelphia 28, Pa. 6. ADV. PG. 635.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa.
1-3-6. ADV. PG. 286.
Embassy Engineering Corp., 673 Elton Ave., New York
51, N. Y. 3.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd.,
Bayside 61, N. Y. 8. ADV. PG. 388.
ENGINEERED ELECTRONICS CO., 506 E. First St.,
Santa Ana, Calif. 2-9. ADV. PG. 623.
Engineered Magnetics Div. of Gulton Mfg. Corp., 11818
Teale St., Culver City, Calif. 1-2-4a-6-7-8-9.
Engineering Specialty Co., 3100 Eldredge St., Salt Lake
City, Utah. 2-6-8-9.
F-R MACHINE WORKS, INC., 26-12 Borough Place,
Woodside 77, N. Y. 3-4-5. ADV. PG. 195-198.
Fansteel Metallurgical Corp., 2200 Sheridan Rd., North
Chicago, Ill. 2.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart
Ave., Garden City, N. Y. 2-3. ADV. PG. 594.
FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd.,
Clifton, N. J. 4. ADV. PG. 355-357.
Fidelity Instrument Corp., 1000 E. Boudry Ave., York,
Pa. 4a-6-9.
Fluke Mfg. Co., Inc., 1111 W. Nickerson St., Seattle 99,
Wash. 2-6-8.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25
Amity St., Little Falls, N. J. 2-3-6-9.
Fox Products Co., 4720 N. 18th St., Philadelphia 41,
Pa. 1-2.
FREED TRANSFORMER CO., INC., 1736 Weirfield St.,
Brooklyn 27, N. Y. 2. ADV. PG. 460.
GPS Instrument Co., Inc., 811 Boylston St., Boston 16,
Mass. 2.
GATES ELECTRONIC CO., 2090 Barnes Ave., Bronx 62,
N. Y. 2-6-8-9. ADV. PG. 678.
Gates Radio Co., Quincy, Ill. 1-2-9.
GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
1 River Rd., Schenectady 5, N. Y. 1-2. ADV. PG.
1-12.
General Electric Co., Technical Products Dept., Electronics
Park, Syracuse, N. Y. 2-6-7-8-9.
GENERAL MAGNETICS, INC., 135 Bloomfield Ave.,
Bloomfield, N. J. 4a-6-8-9. ADV. PG. 426.
General Nuclear Corp., 550 Fifth Ave., New York 28,
N. Y. 1-2-3-6-8-9.
General Photo Products Co., Inc., General Photo Bldg.,
15 Summit Ave., Chatham, N. J. 2-3-8.
General Precision Laboratory Inc., 63 Bedford Rd.,
Pleasantville, N. Y. 6.
GENERAL RADIO CO., 275 Massachusetts Ave., Cam-
bridge 39, Mass. 1-2-4-5-6-8-9. ADV. PG. 316, 317.
Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank,
Calif. 1-2-3-4-4a-6-9.
Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn,
N. J. 1-2-3-4-4a-6-7-8-9.

ELECTRONIC and ALLIED PRODUCTS

POWER SUPPLIES

GULTON INDUSTRIES, INC., Metuchen, N. J. 4a-7. ADV. PG. 425.
Gyro Electronics Co., 325 Canal St., New York, N. Y. 1-2.
Hallamere Electronics Co., 8352 Brookhurst Ave., Anaheim, Calif. 2-4a-6-9.
HAMMER ELECTRONICS CO., INC., Box 531, Princeton, N. J. 2-3-6-8-9. ADV. PG. 671.
Hanover Developments, 401 E. 71st St., New York 21, N. Y. 2-9.
HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. 2-6-7-8-9. ADV. PG. 26, 27.
Harvey-Wells Electronics, Inc., North St., Southbridge, Conn. 1-2.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. 2-8-9. ADV. PG. 575.
Hertner Electric Co., 12690 Elmwood Ave., Cleveland 11, Ohio. 1-2-6-9.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. 2-4-6-9. ADV. PG. 29-40.
HOMELITE DIV. OF TEXTRON INC., Port Chester, N. Y. 1-2. ADV. PG. 645.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md. 2-7.
Hunter-Bristol Corp., Bristol, Pa. 2-6.
Hycron Electronics, Inc., P. O. Bin D, Pasadena, Calif. 7.
I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio. 2-6.
Industrial Electronics Co., Inc., Hanover, Mass. 2.
Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J. 6.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. 1-2-6. ADV. PG. 676.
Industronics, Box 424, Arlington Heights, Ill. 1-8-9.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. 1-2-3-6-7-8-9. ADV. PG. 613.
International Research Associates, 2221 Warwick Ave., Santa Monica, Calif. 1-3-7-8.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. 1-2-3-4a-6-7-9. ADV. PG. 355-357.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. 5. ADV. PG. 640.
JAMES VIBRAPOR CO., 4050 N. Rockwell St., Chicago 18, Ill. 1-2. ADV. PG. 542.
Johnson Co., E. F. Waseca, Minn. 2.
Jowll Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa. 1-2-3-5-6-7-8-9.
Kahn and Co., Inc., 541 Windsor St., Hartford 1, Conn. 2-8.
Katolight Corp., First Ave. at Chestnut, Mankato, Minn. 1-2.
KEPCO LABS., INC., 131-38 Sanford Ave., Flushing 55, N. Y. 1-2-3-4-4a-5-6-7-8-9. ADV. PG. 45-48.
Keystone Products Co., 904-6 23rd St., Union City, N. J. 1-6-9.
KIN TEL (KAY LAB.), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. 1-2-6-7-8-9. ADV. PG. 121-123.
Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston, Mass. 2-3-8.
KROHN-HITE CORP., 580 Massachusetts Ave., Cambridge 39, Mass. 2-6-8-9. ADV. PG. 82, 83.
LAMBDA ELECTRONICS CORP., 11-11 131 St., College Point 56, N. Y. 2-4-4a-6-7-8-9. ADV. PG. 89-92.
Lawn Electronics Co., East Freehold Rd., Freehold, N. J. 2-3-4-6-8-9.
Leach Corp., Inet-Palmer Div., 4441-43 S. Santa Fe Ave., Los Angeles 58, Calif. 1-2-3-4a-6-8-9.
Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif. 1-2-9.
Lee Electric & Mfg. Co., 2806 Clearwater St., Los Angeles 39, Calif. 2-3-4a-6-8-9.
Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass. 1-2.
Leland Electric Co. Div. of The American Machine & Foundry Co., 1501 Webster St., Dayton 1, Ohio. 1-2-3-6-9.
Lesa, Via Bergamo 21, Milan, Italy. 1-2.
Levinthal Electronic Products, Inc., 3180 Hanover St., Stanford Industrial Park, Palo Alto, Calif. 2-3-4-5-6-8-9.
Link Aviation, Inc., Binghamton, N. Y. 2-6-9.
McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J. 2-3-6-8-9.
MACARR, INC., 2543 Boston Rd., Bronx 67, N. Y. 2-6-8-9. ADV. PG. 640.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. 1-2-3-4-6-8-9.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind. 1-2.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. 2-4a-8-9. ADV. PG. 389.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. 2-4a-6-7-8-9. ADV. PG. 292, 293.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. 1-2-3-4-6-8-9. ADV. PG. 513.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y. 2-6-9.
Maryland Electronic Mfg. Corp., College Park, Md. 7.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y. 6.
Menlo Research Laboratory, 538 Phelan Ave., San Jose, Calif. 1-3.
MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. 1-2-6-8-9. ADV. PG. 61.
Milburn, Inc., Alexander, 1241 Ridgely St., Baltimore 30, Md. 2-3-6.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass. 3-6-9.

MINNEAPOLIS-HONEYWELL, BOSTON DIV., 1400 Soldiers Field Rd., Boston 15, Mass. 1. ADV. PG. 445.
Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N. Hopkins, Minn. 1-2-7-9.
MODEL RECTIFIER CORP., 1065 Utica Ave., Brooklyn 3, N. Y. 2-7-8. ADV. PG. 665, 667.
Model Electric Products Corp., 1500 Bangs Ave., Asbury Park, N. J. 3.
Modern Industries Inc., 2601 Colorado Ave., Santa Monica, Calif. 1-2-3-4-4a-6-7-9.
Mohawk Electronic Research Labs., Inc., Box 126-A, Rd 4, Amsterdam, N. Y. 6-8-9.
Motoresearch Co., 1600 Junction Ave., Racine, Wis. 1-2-6-9.
Moulic Specialties Co., 1007 W. Washington St., Bloomington, Ill. 2-6-9.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., CENTURY HOUSE, Shaftesbury Ave., London, W. C. 2, England. 9. ADV. PG. 560.
Multi-Products Co., 21470 Coolidge Highway, Oak Park, Mich. 1-2.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. 1-2-3-4-4a-6-7-8-9. ADV. PG. 369, 370.
Nader Mfg. Co., 2661 Myrtle Ave., Monrovia, Calif. 2-6-7.
National Aircraft Corp., 3411 Tulare St., Burbank, Calif. 1-2-3-4-6-7-8-9.
National Spectrographic Labs., Inc., 6300 Euclid Ave., Cleveland 3, Ohio. 1-2-3-6-8.
NAVIGATION COMPUTER CORP., 1621 Snyder Ave., Philadelphia 45, Pa. 2-6-7-9. ADV. PG. 585.
Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill. 2.
Nelson Instrument Co., 607 Howard St., Evanston, Ill. 2-3-6.
Network Mfg. Corp., 213 W. Fifth St., Bayonne, N. J. 2.
NEUTRONIC ASSOCIATES, 93-14 101st Ave., Ozone Park 17, N. Y. 2-3-6-8-9. ADV. PG. 680.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif. 1-2-9.
North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif. 7.
North Electric Co., 553 S. Market St., Galion, Ohio. 1-2-9.
NORTH HILLS ELECTRIC CO., INC., 402 Sagamore Ave., Mineola, N. Y. 6. ADV. PG. 428.
NORTHEAST SCIENTIFIC CORP., 617 Concord Ave., Cambridge 38, Mass. 2-3-4-5-6-9. ADV. PG. 641.
Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa. 2-3-6-7-8-9.
Omega Laboratories Inc., P. O. Box 264, Rowley, Mass. 4-6.
OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. 1-2-3-4-4a-6-7-8-9. ADV. PG. 650.
Optimized Devices, Inc., P. O. Box 38, Gedney Station, White Plains, N. Y. 2-6.
Oregon Electronic Mfg. Co., 2232 E. Burnside St., Portland 15, Ore. 2-3-4a-6-7-8-9.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. 1-4-6. ADV. PG. 648.
Otis Elevator Co., Electric Div., 35 Ryerson St., Brooklyn 5, N. Y. 1-2-3-6-8-9.
OWEN LABORATORIES, INC., 55 Beacon Place, Pasadena, Calif. 2-6-9. ADV. PG. 680.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. 6. ADV. PG. 268.
Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif. 2-6-9.
Peerless Electrical Div. of Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif. 3.
Pegasus Laboratories, Inc., 3692 Eleven Mile Rd., Berkeley, Mich. 6.
Pennsylvania Testing Lab., Inc., Doylestown, Pa. 1-2-3-4-6-8-9.
Performance Measurements Co., 15301 W. McNichols, Detroit 35, Mich. 2.
PERKINS ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. 1-2-3-4a-5-6-7-8-9. ADV. PG. 67.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. 1-2-3-4-5-6-8-9. ADV. PG. 500.
Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass. 6.
Pioneer Gen-E-Motor Co., 5841 W. Dickens, Chicago 39, Ill.
Plastic Capacitors, Inc., 2620 N. Clybourn Ave., Chicago 14, Ill. 1-2-3-8-9.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. 4-5. ADV. PG. 403, 404.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 2020 Tillary St., Brooklyn 1, N. Y. 2-4-5-9. ADV. PG. 164, 165.
Polytron Engineering Inc., P. O. Box 5024, Middle River 20, Md. 7.
POWER DESIGNS, INC., 89-25 130th St., Richmond Hill 18, N. Y. 2-3-4-4a-6-7-8-9. ADV. PG. 609.
POWER SOURCES, INC., Northwest Industrial Park, Burlington, Mass. 7. ADV. PG. 674.
Power Supplies Inc., 1007 Olive St., Highland, Ill. 1-2-3-6-8-9.
Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J. 1-2-3-4a-6-8-9.
Pratt & Whitney Co., Inc., Charter Oak Blvd., West Hartford 1, Conn. 2-3-4-4a-6-7-8-9.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y. 1-2-3-6-8-9.
PRECISE MEASUREMENTS CO., R. D. # 1, Millbrooks Rd., Flemington, N. J. 1-2-3-6-8-9. ADV. PG. 399.
Press Wireless Laboratories Inc., 25 Prospect Pl., West Newton 65, Mass. 3.
Pressman Associates, 7803 Farnsworth St., Philadelphia 15, Pa. 2-6-7-9.

Production Research Corp., Thornwood, N. Y. 6.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England. 9.
Quantum Electronics, Inc., 2312 Wisconsin St. NE, Albuquerque, N. M. 7-9.
RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif. 1-2-3-6-7-8-9.
Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill. 3-9.
Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill. 3.
Ram Meter, Inc., 1100 Hilton Rd., Ferndale, Detroit 20, Mich. 2.
Ramy Mfg. Co., 1624 E. First St., Los Angeles 23, Calif. 2-8.
Ransom Research, Box 382, San Pedro, Calif. 6-7-9.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. 1-2-6-7-9. ADV. PG. 332.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. 2-6-9. ADV. PG. 437.
Reflectone Corp., Cor. Post Rd. & Myrano Lane, Stamford, Conn. 3-4-6-9.
Research Electronics Laboratories, Roslyn, Pa. 2-3.
RHEEM ELECTRONICS DIVISION, 7777 Industry Ave., Rivera, Calif. 1-2-3-4-4a-6-7-8-9. ADV. PG. 654.
Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif. 1-2-3-7-9.
Richardson-Allen Corp., 116-15 15th Ave., College Point, N. Y. 1-2-6-8-9.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio. 3.
Saft Corp. of America, 2 Gregg St., Lodi, N. J. 2.
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill. 1-2-3.
Schauer Mfg. Corp., 4521 Alpine Ave., Cincinnati 36, Ohio. 2-6-8-9.
Scientific Electric Corp., 105-119 Monroe St., Garfield, N. J. 1-2-3-6-8-9.
Sel-Res Corp., Rectifier Div., 155 Manchester Place, Newark 4, N. J. 2-3-4a-6-8.
Servo Corp. of America, 20-20 Jerico Turnpike, New Hyde Park, N. Y. 3.
Servo-Tek Products Co., Inc., 1086 Goffie Rd., Hawthorne, N. J. 2-6-9.
SERVOMECHANISMS, INC., MECHATROL DIV., 625 Main St., Westbury, N. Y. 6. ADV. PG. 25.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. 2. ADV. PG. 101.
Shasta Div., Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif. 2-6-8-9.
Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash. 6.
Skysweeper, Inc., McHenry, Ill. 1-2-3.
SLAUGHTER COMPANY, Piqua 9, Ohio. 1-2-3-8. ADV. PG. 494.
Societe Anonyme de Machines Electrostatiques, B.P. 150, Grenoble, France. 3.
SOLA ELECTRIC CO., 4633 W. 16th St., Chicago 50, Ill. 6-9. ADV. PG. 269-272.
Solartron, Inc., Western Div., 10761 Burbank Blvd., North Hollywood, Calif. 73.
SONEX, INC., 73 S. State Rd., Upper Darby, Pa. 2-7-8-9. ADV. PG. 664.
SORENSEN & CO., INC., Richards Ave., Norwalk, Conn. 1-2-3-4a-6-7-8-9. ADV. PG. 151-154.
SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. 2-3-6-8. ADV. PG. 230, 231.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C. 1-2-7.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. 2. ADV. PG. 143.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J. 2-3-6-9.
Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. 1-2-6-7-9.
Stator Electric Corp., 46-25 58th St., Woodside, N. Y. 2-6-7-8-9.
SUPERIOR ELECTRIC CO., THE, 5000 Bradley Ave., Bristol, Conn. 1-2-6-8-9. ADV. PG. 96-99.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. 1-2-3-6-8-9. ADV. PG. 733-739.
Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y. 1-2-7-9.
Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y. 2-3-9.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. 1-2-3-4-4a-5-6-7-8-9. ADV. PG. 549.
Technical Measurement Corp., 140-142 State St., New Haven 11, Conn. 2-3-6-8-9.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. 1-2-3-6-8-9. ADV. PG. 417.
TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. 1-2-7. ADV. PG. 661.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y. 1-2-3-6-9.
Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J. 9.
Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y. 1-2-6-8-9.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y. 1-2-3-4a-6-8-9.
Terado Co., 1059 Raymond Ave., St. Paul 14, Minn. 2.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill. 2-3-4a-6-8-9.
Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill. 2-8-9.
Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. 2-6-8-9.
Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif. 7.
Trans Electronics Inc., 7349 Canoga Ave., Canoga Park, Calif. 1-2-6-7-8-9.

Transistor Devices, Inc., 730 Boulevard, Kenilworth, N. J. 7.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Sea-
 ford, N. Y. 1. ADV. PG. 687.
 United Electrodynamics Div. of United Geophysical Co.,
 Inc., 1200 S. Marengo, Pasadena, Calif. 1-2-6-7.
 United States Dynamics Corp., 1250 Columbus Ave.,
 Boston 20, Mass. 2-3-4a-6-7-8-9.
 United Technical Laboratories, Box 425-V, Morristown,
 N. J. 1-6.

UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRAN-
SISTOR PRODUCTS CORP., 143 E. 49th St., New
 York 17, N. Y. 1-2-3-4-4a-5-6-7-8-9. ADV. PG. 548.
UNIVERSAL ELECTRONICS CO., 1720 Twenty-Second
 St., Santa Monica, Calif. 2-4a-6-7-8-9. ADV. PG. 586.
 Valley Engineering Co., P.O. Box 2, Los Angeles, N. W.
 3.

VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto,
 Calif. 4. ADV. PG. 174, 175, 411.

VARO MFG. CO., INC., 2201 Walnut St., Garland,
 Texas. 1-2-4a-6-7-8-9. ADV. PG. 564.

VECTROL ENGINEERING, INC., P.O. Box 1089, Stam-
 ford, Conn. 2-6-9. ADV. PG. 632.

VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass.
 1-4-5-8. ADV. PG. 394.

VIBRATION RESEARCH LABS, INC., 97 Lake Ave.,
 Tuckahoe, N. Y. 1-2-3-6-7-9. ADV. PG. 621.

Vickers Electric Division, Vickers, Inc., 1825 Locust St.,
 St. Louis 3, Mo. 2-6-9.

VICTOREEN INSTRUMENT CO., COMPONENTS DIV.,
 5806 Hough Ave., Cleveland 3, Ohio. 3. ADV. PG.
 366.

WALLSON ASSOCIATES, LTD., 963 Frelinghuysen Ave.,
 Newark 5, N. J. 1-2-3-4-4a-6-7-8-9. ADV. PG. 691.

Warren Mfg. Co., Inc., The Newton Rd., Littleton,
 Mass. 4a-6-7-9.

WAVE/PARTICLE CO., P.O. Box 252, Menlo Park,
 Calif. 5-6. ADV. PG. 591.

Westbury Electronics, Inc., 300 Shames Drive, Westbury,
 N. Y. 1-6-9.

Western Gear Corp., Electro Products Div., 132 W.
 Colorado St., Pasadena 1, Calif. 1-2-6-7-8-9.

White Electron Devices Inc., Roger, Fourth Ave.,
 Haskell, N. J. 5.

Wickes Engineering & Construction Co., P. O. Box 590,
 Camden 1, N. J. 2-9.

Wincharger Corp., E. 7th & Division Sts., Sioux City,
 Iowa. 1-2-6.

PRE-AMPLIFIERS for COMMUNICATION RECEIVERS

APPLIED RESEARCH, INC., 163-07 Depot Rd., Flush-
 ing, N. Y. ADV. PG. 672.

ARENBERG ULTRASONIC LABORATORY, INC., 94 Green
 St., Jamaica Plain 30, Mass. ADV. PG. 672.

Avionex Electronics Corp., 10855 Vanowen, North Hol-
 lywood, Calif.

Bogen Co., Inc., David, P.O. Box 500, Paramus, N. J.
 Bone Engineering Corp., 701 W. Broadway, Glendale
 4, Calif.

Community Engineering Corp., Box 824, State College,
 Pa.

Langevin Mfg. Corp., 47-37 Austell Place, Long Island
 City 1, N. Y.

Mack Electronics A Div. of Mack Trucks, Inc., Plain-
 field, N. J.

Millen Mfg. Co., James, 150 Exchange St., Malden,
 Mass.

Mohawk Electronic Research Labs., Inc., Box 126-A,
 RD 4, Amsterdam, N. Y.

RS Electronics Corp., 435 Portage Ave., P.O. Box 368,
 Station A, Palo Alto, Calif.

Radio Mfg. Engineers, Inc., 501 Walnut St., Wash-
 ington, Ill.

Resdel Engineering Corp., 330 S. Fair Oaks Ave., Pasa-
 dena 1, Calif.

Standard Coil Products Co., 2085 N. Hawthorne St.,
 Melrose Park, Ill.

Telectro Industries Corp., 35-16 37th St., Long Island
 City 1, N. Y.

Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn
 21, N. Y.

Telephonics Corp., Park Ave., Huntington, N. Y.

Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

Trutone Electronics, Inc., 812-14 N. Highland Ave.,
 Los Angeles 38, Calif.

UNIWAY, INC., 2 Marine St., P. O. Box 474, Farm-
 ingdale, N. Y. ADV. PG. 428.

PRE-AMPLIFIERS for OSCILLOSCOPES

Airmec Ltd., High Wycombe, Buckinghamshire, England.

American Electronic Labs., Inc., 121 N. 7th St., Phila-
 delphia 6, Pa.

Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.

Daytronic Corp., 216 S. Main St., Dayton, Ohio.

Donner Scientific Co., 888 Galindo St., Concord, Calif.

Dubrow Development Co., 235B Penn St., Burlington,
 N. J.

DuMont Laboratories, Inc., Allen B., 760 Bloomfield
 Ave., Clifton, N. J.

ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa.
 ADV. PG. 286.

Ellis Associates, Box 77, Pelham, N. Y.

Hanover Developments, 401 E. 71st St., New York 21,
 N. Y.

Jowill Electronics, Inc., Belfield & Wister, Philadelphia
 44, Pa.

KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415
 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.

Millen Mfg. Co., James, 150 Exchange St., Malden,
 Mass.

Process & Instruments, 15 Stone Ave., Brooklyn 33,
 N. Y.

Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cam-
 bridge 39, Mass.

SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field
 Rd., Boston 35, Mass. ADV. PG. 304.

Tektronix, Inc., P. O. Box 831, Portland 7, Ore.

Trutone Electronics, Inc., 812-14 N. Highland Ave., Los
 Angeles 38, Calif.

PRE-AMPLIFIERS—Phonograph

Alco Electronics Mfg. Co., 3 Wolcott Ave., Lawrence,
 Mass.

Allied Radio Corp., 100 North Western Ave., Chicago
 80, Ill.

ALTEC LANSING CORP., 1515 S. Manchester Ave.,
 Anaheim, Calif. ADV. PG. 442.

Barker Sales Co., 996-8 Edgewater Ave., Ridgefield,
 N. J.

Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.

Calbest Electronics Co., 4801 Exposition Blvd., Los
 Angeles 16, Calif.

DOTY ACOUSTICAL ELECTRONIC LABS., INC., 431
 Broome St., New York 13, N. Y. ADV. PG. 676.

Dukane Corp., St. Charles, Ill.

Electro Voice Mfg. Co., Inc., Buchanan, Mich.

Electronic Instrument Co., Inc., 84 Withers St., Brook-
 lyn 11, N. Y.

ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa.
 ADV. PG. 286.

Fisher Radio Corp., 21-21 Forty-fourth Drive, Long
 Island City 1, N. Y.

General Electric Co., Technical Products Dept., Elec-
 tronics Park, Syracuse, N. Y.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton
 Harbor 14, Mich. ADV. PG. 575.

INTERELECTRONICS CORP., 2432 Grand Concourse,
 New York 58, N. Y. ADV. PG. 613.

Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13,
 Ill.

Langevin Mfg. Corp., 47-37 Austell Place, Long Island
 City 1, N. Y.

Les, Via Bergamo 21, Milan, Italy.

McIntosh Laboratory Inc., 2 Chambers St., Binghamton,
 N. Y.

Molded Insulation Co., 335 E. Price St., Philadelphia
 44, Pa.

National Co., Inc., 61 Sherman St., Malden 48, Mass.

Newcomb Audio Products Co., 6824 Lexington Ave.,
 Hollywood 38, Calif.

Pedersen Electronics Co., Mount Diablo Blvd., Lafayette,
 Calif.

PHOTOCIRCUITS CORP., Glen Cove, N. Y. ADV. PG.
 396.

PICKERING & CO., 309 Woods Ave., Oceanside, N. Y.
 ADV. PG. 617.

Pilot Radio Corp., 37-06 36th St., Long Island City,
 N. Y.

Precise Development Corp., 2 Neil Court, Oceanside,
 N. Y.

Pulse Techniques Inc., 1411 Pallsades Ave., West Engle-
 wood, N. J.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS
 DIV., Camden, N. J. ADV. PG. 453, Third & Fourth
 Covers.

Radio Craftsman Inc., The, 4223 W. Jefferson Blvd.,
 Los Angeles 16, Calif.

Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cam-
 bridge 39, Mass.

Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long
 Island City, 3, N. Y.

SONEX, INC., 73 S. State Rd., Upper Darby, Pa. ADV.
 PG. 664.

Stromberg-Carlson Co., Div. of General Dynamics Corp.,
 100 Carlson Rd., Rochester 3, N. Y.

Summit Electronics, Inc., 7 Industrial Place, Summit,
 N. J.

Telectro Industries Corp., 35-16 37th St., Long Island
 City 1, N. Y.

Trutone Electronics, Inc., 812-14 N. Highland Ave.,
 Los Angeles 38, Calif.

Webster Electric Co., 1900 Clark St., Racine, Wis.

Weingarten Electronic Labs., Inc., 7556 Melrose Ave.,
 Los Angeles 46, Calif.

PRE-SELECTORS

Electro Voice Mfg. Co., Inc., Buchanan, Mich.

RADAR DESIGN CORP., 210 Fifth Ave., New York 16,
 N. Y. ADV. PG. 615.

Standard Coil Products Co., 2085 N. Hawthorne St.,
 Melrose Park, Ill.

Trutone Electronics, Inc., 812-14 N. Highland Ave.,
 Los Angeles 38, Calif.

PRESSES—Metal Forming

Art-Lloyd Metal Products Corp., 2973 Cropsey Ave.,
 Brooklyn 14, N. Y.

Denison Engineering Div., American Brake Shoe Co.,
 1160 Dublin Rd., Columbus 16, Ohio.

Hydraulic Press Mfg. Co., A Div. of Koehring Co., Mt.
 Gilead, Ohio.

Stokes Co., F. J., 5500 Tabor Rd., Philadelphia 20, Pa.

SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway,
 New York 19, N. Y. ADV. PG. 733-739.

Walsh Press & Die Co., Div. of American Gage &
 Machine Co., 47-09 W. Kinzie St., Chicago, Ill.

PRESSURE

See **CONTROLS**

PRESSURIZATION UNITS

CHURCHILL LIGHTING CORP., 344 Franklin St., Mel-
 rose 76, Mass. ADV. PG. 605.

Daimo Victor Co., Div. of Textron, Inc., 1515 Industrial
 Way, Belmont, Calif.

EASTERN INDUSTRIES, INC., 100 Skiff St., Hamden,
 Conn. ADV. PG. 612.

Henry and Miller Industries Inc., 675 Garfield Ave.,
 Jersey City 5, N. J.

Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.

United Electric Controls Co., 85 School St., Watertown
 72, Mass.

PRINTED, STAMPED or ETCHED CIRCUITS

See **CIRCUITS**

PRINTERS—High Speed

ACF Electronics, 800 N. Pitt St., Alexandria, Va.

ANElex Corp., 150 Causeway St., Boston 14, Mass.

Apex Machine Co., 14-13 118 St., College Point 56,
 N. Y.

BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38,
 Mass. ADV. PG. 537.

BERKELEY DIVISION, BECKMAN INSTRUMENT, INC.,
 Dept. G-13, 2200 Wright Ave., Richmond 3, Calif.
 ADV. PG. 73-80.

Electro Data Div. of Burroughs Corp., 460 Sierra Madre
 Villa, Pasadena 6, Calif.

General Research & Supply Co., 572 S. Division Ave.,
 Grand Rapids 3, Mich.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP.,
INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd.,
 Clifton, N. J. ADV. PG. 355-357.

Matthews & Co., Jas. H., 3926 Forbes St., Pittsburgh
 13, Pa.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great
 Neck, N. Y.

Remington Rand Univac Div. of Sperry Rand Corp.,
 Univac Park, St. Paul 16, Minn.

Scientific Instruments Service Co., 44 Bromfield St.,
 Boston 8, Mass.

VICTOR ADDING MACHINE CO., ELECTRONICS SALES
DIV., 3900 N. Rockwell St., Chicago 18, Ill. ADV.
 565.

PRINTERS—Keyboard

Clary Corp., San Gabriel, Calif.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP.,
INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd.,
 Clifton, N. J. ADV. PG. 355-357.

Potter Instrument Co., Inc., 115 Cutter Mill Rd.,
 Great Neck, N. Y.

PRINTERS—Line

ANElex Corp., 150 Causeway St., Boston 14, Mass.

Clary Corp., San Gabriel, Calif.

COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave.,
 North Hollywood, Calif. ADV. PG. 168.

Matthews & Co., Jas. H., 3926 Forbes St., Pittsburgh
 13, Pa.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great
 Neck, N. Y.

Printloid, Inc., 93 Mercer St., New York 12, N. Y.

VICTOR ADDING MACHINE CO., ELECTRONICS SALES
DIV., 3900 N. Rockwell St., Chicago 18, Ill. ADV.
 PG. 565.

PROBES

See also **LINES—Slotted**

Admittance-Namco Corp., Farmingdale, N. Y.

American Electronic Labs., Inc., 121 N. 7th St., Phila-
 delphia 6, Pa.

COAXIAL CONNECTOR CO., INC., 37 N. Second Ave.,
 Mt. Vernon, N. Y. ADV. PG. 600.

DuMont Laboratories, Inc., Allen B., 750 Bloomfield
 Ave., Clifton, N. J.

Dunlap Electronics, 764 Ninth St., Des Moines, Iowa.

Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8,
 Calif.

ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa.
 ADV. PG. 286.

Electronic Instrument Co., Inc., 84 Withers St., Brook-
 lyn 11, N. Y.

F-R MACHINE WORKS, INC., 26-12 Borough Place,
 Woodside 77, N. Y. ADV. PG. 195-198.

Futuramic Co., 915 S. Broadway, Park Ridge, Ill.

GIANNINI & CO., INC., G. M., 918 E. Green St., Pasa-
 dena 1, Calif. ADV. PG. 344.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton
 Harbor 14, Mich. ADV. PG. 575.

Jackson Electrical Instrument Co., 16 S. Patterson Blvd.,
 Dayton 2, Ohio.

Jowill Electronics, Inc., Belfield & Wister, Philadelphia
 44, Pa.

Kelvin & Hughes Ltd., New North Rd., Barkingside,
 Essex, England.

KEYSTONE ELECTRONICS CORP., 423 Broome St., New
 York 13, N. Y. ADV. PG. 675.

LAVOIE LABORATORIES, INC., Morganville, N. J. ADV.
 PG. 485.

Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
 Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 Victory Engineering Corp., 101 Springfield Rd., Union, N. J.

PROBES—High Frequency

Admittance-Namco Corp., Farmingdale, N. Y.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Donner Scientific Co., 888 Galindo St., Concord, Calif.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill.
HEATH CO. A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
 Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
 Jowill Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
 Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.
 Metronix, Inc., Mill Lane, Waterford, Conn.
 Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
 Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
 Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
 Specialty Engineering Div., Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.

PROBES—High Voltage

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
 Javex, P. O. Box 646, Redlands, Calif.
 Jowill Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13 N. Y. ADV. PG. 675.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
 Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.
 Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
 Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
 Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.

PROBES—Microwave

See MICROWAVE ACCESSORIES

PROJECTION TUBES

See TUBES—Television Projection

PROTECTIVE SEALERS

See INSULATING COMPOUNDS

PSYCHO GALVANOMETERS

Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 Grason-Stadler Co., West Concord, Mass.
 Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

PUBLIC ADDRESS SYSTEMS

See also SOUND SYSTEMS—Complete

Allied Radio Corp., 100 North Western Ave., Chicago 80, Ill.
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
 Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
 Bliss Electronic Corp., Box 366, Sussex, N. J.
 Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
 Budelman Radio Corp., 376 Fairfield Ave., Stamford, Conn.
 Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Dukane Corp., St. Charles, Ill.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
 Executone, Inc., 415 Lexington Ave., New York 17, N. Y.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Loge Sound Engineers, J. M., 2171 W. Washington Blvd., Los Angeles 18, Calif.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
 National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
 Standard Telephones & Cables Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telestro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 Webcor, Inc., Chicago, Ill.
 Webster Electric Co., 1900 Clark St., Racine, Wis.

PUMPS—Metering

Hardman Co., Inc., H. V., 571 Cortland St., Belleville 9, N. J.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 276, 277.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Robbins & Myers, Inc., 1345 Lagonda Ave., Springfield 99, Ohio.
 Robinson, Inc., Edward E., Machinery Div., 286 Preakness Ave., Paterson 2, N. J.

PUMPS—Vacuum

See VACUUM PUMPS

PUSHBUTTONS

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
 Arcolectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
 Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
WARD LEONARD ELECTRIC CO., 31 South St., Mt. Vernon, N. Y. ADV. PG. 408.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

QUARTZ

See also CRYSTALS

QUARTZ—Fused

Amersil Co., Inc., 685 Ramsey Ave., Hillside 5, N. J.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Servo-Recording Instruments, Inc., 1815 W. Van Buren, Phoenix, Ariz.
SYNCR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 589.
 Thermal American Fused Quartz Co., Inc., 18-20 Salem St., Dover, N. J.
WESTERN GOLD & PLATINUM CO., 525 Harbor Blvd., Belmont, Calif. ADV. PG. 593.

RACKS—AGING—Vacuum Tube & Transistor

BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
 Kahn & Co., 541 Windsor St., Hartford 1, Conn.
 Research Electronics Laboratories, Roslyn, Pa.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
WALLSON ASSOCIATES, LTD., 963 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 691.
 Wright Equipment Co., 128 N. Main St., Milltown, N. J.

RACKS—Mounting & Relay

A&P Metal Products Mfg. Corp., 111 Bloomingdale Rd., Hicksville, N. Y.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 567.
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
 Amco Engineering Co., 7335 Ainslie St., Chicago 31, Ill.
 Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
 Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
BALTIMETAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 501.
 Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 387.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Elgin Metalformers Corp., 630 Congdon Ave., Elgin, Ill.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
FALSTROM CO., 44 Falstrom Court, Passaic, N. J. ADV. PG. 221.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
 Mid-West Conveyor Co., Inc., Metal Products Div., 7th & Sunshine Rd., Fairfax District, Kansas City, Kan.
 Mobil Electronics Mfg. Co., 1111 State Rd., 67E, Anderson, Ind.
 Par-Metal Products Corp., 32-62 49th St., Long Island City 3, N. Y.
 Peterson & Neville Inc., 365 Dorchester Ave., Boston, Mass.
 Pneumafil Corp., Charlotte, N. C.

PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx 59, N. Y. ADV. PG. 646.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
REF Manufacturing Corp., Jericho Turnpike, Mineola, N. Y.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
Topatron, Inc., 942 E. Ojai Ave., Ojai, Calif.
Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
Wyco Metal Products, 6918 Beck Ave., North Hollywood, Calif.

RADAR SYSTEMS

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.
Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
Collins Radio Co., Cedar Rapids, Iowa.
Daimo Victor Co., Div. of Textron, Inc., 1515 Industrial Way, Belmont, Calif.
Edo Corp., College Point, N. Y.
Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
Farnsworth Electronics Co., Div. of IT&T, 3700 E. Pontiac St., Fort Wayne 1, Ind.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
Gilfillan Bros., Inc., 1815 Venice Blvd., Los Angeles 6, Calif.
Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles 7, Calif.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
Microwave Development Labs., Inc., 92 Broad St., Babson Park 57, Mass.
Moran Instrument Corp., 170 E. Orange Grove St., Pasadena 3, Calif.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
Otis Elevator Co. Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO RECEPTOR CO., 240 Wythe Ave., Brooklyn 11, N. Y. ADV. PG. 68, 69.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
Resdel Engineering Corp., 330 S. Fair Oaks Ave., Pasadena 1, Calif.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

RADIOSONDES

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
Friez Instrument Division, Bendix Aviation Corp., Baltimore 4, Md.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.

RADOMES

CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
Daimo Victor Co., Div. of Textron, Inc., 1515 Industrial Way, Belmont, Calif.
DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Keller Products Co., 41 Union St., Manchester, N. H.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 43.
Koch & Son, H., Corte Madera, Calif.
McMILLAN INDUSTRIAL CORP., Brownville Avenue Plant, Ipswich, Mass. ADV. PG. 573.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 140, 141.
Mycalex Electronics Corp., 125 Clifton Blvd., Clifton, N. J.
Silicone Insulation, Inc., 1385 Seabury Ave., Bronx 61, N. Y.
Specialty Engineering Div., Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
U. S. Plywood Corp., Electrical Structures Dept., 55 W. 44th St., New York 17, N. Y.
Zenith Aircraft Div. of Zenith Plastics Co., P. O. Box 91, Gardena, Calif.

RARE EARTHS

BAKER & ADAMSON PRODUCTS, GENERAL CHEMICAL DIV., ALLIED & CHEMICAL DYE CORP., 40 Rector St., New York 6, N. Y. ADV. PG. 363.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Delta Chemical Works, 21 W. 60th St., New York, N. Y.
Heavy Minerals Co., 261 Madison Ave., New York 16, N. Y.
Michigan Chemical Corp., St. Louis, Mich.
New Process Metals, Inc., 45-65 Manufacturers Place, Newark 5, N. J.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Rare Earths, Inc., Box 488, Pompton Plains, N. J.
Vitro Corp. of America, 261 Madison Ave., New York 16, N. Y.

RATIOMETERS

See INSTRUMENTS—Electrical Measuring

REACTORS—Saturable

ACME ELECTRIC CORP., 31 Walter St., Cuba, N. Y. ADV. PG. 378.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300.
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
ARNOLD MAGNETICS CORP., 4613 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 553.
Atlas Coil, Inc., 63 Main St., Ansonia, Conn.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
Basler Electric Co., 605 Fifth St., Highland, Ill.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
C. G. S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 50.
California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn.
Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
Clifton Mfg. Co., Inc., 20 N. Springfield Rd., Clifton Heights, Pa.
Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
Coilcraft, Inc., Cary, Ill.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
D & R LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. ADV. PG. 698.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
DEL ELECTRONICS CORP., 521 Homestead Ave., Mt. Vernon, N. Y. ADV. PG. 678.

DIETZ DESIGN MFG. CO., Grandview 6, Mo. ADV. PG. 595.
Dinion Coll Co., Inc., Caledonia, N. Y.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.
ELECTRO ENGINEERING WORKS, 401 Preda St., San Leandro, Calif. ADV. PG. 512.
Electro-Winders Co., Inc., 854 W. Front St., Covina, Calif.
ERA ELECTRIC CORP., 314 Valley Brook Ave., Lyndhurst, N. J. ADV. PG. 665.
Fairfield Engineering Corp., 934 Hope St., Springfield, Conn.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
Foster Transformer Co., 3829 Colerain Ave., Cincinnati 23, Ohio.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL MAGNETICS, INC., 135 Bloomfield Ave., Bloomfield, N. J. ADV. PG. 426.
Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill.
Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
Hadley Co., Inc., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 410.
Hevi Duty Electric Co., Milwaukee 1, Wis.
Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455.
Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
Keystone Products Co., 904-6 23rd St., Union City, N. J.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
Lee Electric & Mfg. Co., 2806 Clearwater St., Los Angeles 39, Calif.
Lindberg Engineering Co., 2450 W. Hubbard St., Chicago, Ill.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
Magnadyne Co., 84 S. Water St., Port Chester, N. Y.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa.
MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 161-163.
Mectronics, 1372-74 E. Walnut St., Pasadena, Calif.
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
Mid-West Coil & Transformer Co., 1642 N. Halstead St., Chicago 14, Ill.
Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
Modern Industries Inc., 2601 Colorado Ave., Santa Monica, Calif.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 369, 370.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676.
New York Transformer Co., Inc., Third Ave., Alpha, N. J.
Nothelfer Winding Labs., Inc., P. O. Box 455, Trenton, N. J.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.
Osborne Electric Co., 712 S.E. Hawthorne, Portland 14, Ore.
Peerless Electrical Div., of Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif.
POLYPHASE INSTRUMENT CORP., East Fourth St., Bridgeport, Pa. ADV. PG. 697.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607.
Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y.
Radionic Transformer Co., 411 S. Sangamon St., Chicago 7, Ill.
Ransom Research, Box 382, San Pedro, Calif.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn.
Sage-Craft, Inc., Norwich, N. Y.
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
Siacky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
SIGNAL TRANSFORMER CO., 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667.
Sorgel Electric Co., 838 W. National Ave., Milwaukee 4, Wis.

Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. ADV. PG. 644.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
 Telex, Inc., Telex Park, St. Paul 1, Minn.
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y.
 Torocel Co., 2615 Bristol Rd., Columbus 21, Ohio.
TOROTEL, INC., 11505 Bellmont Ave., Hickman Mills, Mo. ADV. PG. 539.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405.
 Transformer Specialty Co., Inc., Bala-Cynwyd, Pa.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24.
 Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
 Trenton Transformer Corp., Box 568B, Trenton, N. J.
 Tronic Coil Winding Co., Inc., 58 Wesley St., Waterbury, Conn.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
VARI-L CO., INC., P. O. Box 1433, Stamford, Conn. ADV. PG. 608.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
VIBRATION RESEARCH LABS., INC., 97 Lake Ave., Tuckahoe, N. Y. ADV. PG. 621.
 Waco, Inc., 2032 Broadway, Santa Monica, Calif.
 Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

RECEIVERS—Aircraft

Aeronautical Communications Equipment, Inc., S. W. 37th Ave., Miami 33, Fla.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Bendix Radio Div., Bendix Aviation Corp., Baltimore 4, Md.
 Collins Radio Co., Cedar Rapids, Iowa.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.
 National Aeronautical Corp., Commerce Drive, Ft. Washington Industrial Park, Fort Washington, Pa.
 Navigation Electronics Corp., 11616 Hart St., North Hollywood, Calif.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

RECEIVERS—a-m Fixed Frequency

Aerolab Development Co., 330 W. Holly St., Pasadena, Calif.
 Aeronautical Communications Equipment, Inc., S. W. 37th Ave., Miami 33, Fla.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Collins Radio Co., Cedar Rapids, Iowa.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
 Gosnet Co., 801 S. Main St., Burbank, Calif.
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
 Gyro Electronics Co., 325 Canal St., New York, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 666.
 Mack Electronics A Div of Mack Trucks, Inc., Plainfield, N. J.
 Marconi's Wireless Telegraph Co., Ltd., 23/35 Beaver St., New York 4, N. Y.
 Measurement Engineering, Ltd., Arncliffe, Ontario, Canada.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Multi-Products Co., 21470 Coolidge Highway, Oak Park, Mich.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
 Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
 Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Trans-Aire Electronics, Inc., 195-02 Jamaica Ave., Hollis 23, N. Y.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

RECEIVERS—a-m/f-m Communication

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Avionex Electronics Corp., 19855 Vanowen, North Hollywood, Calif.
 Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
 Collins Radio Co., Cedar Rapids, Iowa.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Denson Electronics Corp., Ellington, Conn.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
 Fisher Radio Corp., 21-21 Forty Fourth Drive, Long Island City 1, N. Y.
 Gosnet Co., 801 S. Main St., Burbank, Calif.
 Hallicrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 265.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
 I.D.E.A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill.

Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Nems-Clarke, Inc., Silver Spring, Md.
 Neutronics Research Co., 165 Lake St., Waltham, Mass.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Precise Development Corp., 2 Nell Court, Oceanside, N. Y.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
 Radio Mfg. Engineers, Inc., 501 Walnut St., Washington, Ill.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

RECEIVERS—Automatic Radio Alarm

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Mobil Electronics Mfg. Co., 1111 State Rd., 67E, Anderson, Ind.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

RECEIVERS—Automobile

Automatic Radio Mfg. Co., Inc., 122 Brookline Ave., Boston, Mass.
 Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Delco Radio Division, GM Corp., 700 E. Firmin St., Kokomo, Ind.
 Eckstein Radio & Television Co., 2601 E. Franklin Ave., Minneapolis 6, Minn.
 Gosnet Co., 801 S. Main St., Burbank, Calif.
 Motorola Communications & Electronics, Inc., 4501 Augusta Blvd., Chicago 51, Ill.
 Philco Corp., C & Toga Sts., Philadelphia 34, Pa.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.

RECEIVERS—Coin Operated

Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Coradio, Inc., 196 Albion Ave., Paterson, N. J.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.

RECEIVERS—Communication and Amateur

Airmec, Ltd., High Wycombe, Buckinghamshire, England.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Budelman Radio Corp., 376 Fairfield Ave., Stamford, Conn.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
 Collins Radio Co., Cedar Rapids, Iowa.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.

Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 Creative Electronics Corp., 94 Lincoln Ave., Stamford, Conn.
 Crosby Labs, Inc., Box 233, Robbins Lane, Hicksville, N. Y.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 General Electric Co., Communications Products Dept., Electronics Park, Syracuse, N. Y.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 265.
 Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
 Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 I. D. E. A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 International Electronics Corp., (Mulard Equipment), 81 Spring St., New York 12, N. Y.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Multi-Products Co., 21470 Coolidge Highway, Oak Park 37, Mich.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 200-202.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
 Radio Mfg. Engineers, Inc., 501 Walnut St., Washington, Ill.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
SPECIFIC PRODUCTS, 14515 Dickens St., Sherman Oaks 13, Calif. ADV. PG. 500.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
 Technical Material Corp., P. O. Box 142, Mamaroneck, N. Y.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
 Wunderlich Radio Co., 2 Fifth Ave., York 11, N. Y.

RECEIVERS—Diversity Reception

Aeronautical Communications Equipment, Inc., S. W. 37th Ave., Miami 33, Fla.
 Audiovox, Inc., 123 Worcester St., Boston 18, Mass.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Collins Radio Co., Cedar Rapids, Iowa.
 Crosby Labs, Inc., Box 233, Robbins Lane, Hicksville, N. Y.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 Hallcrafters Co., 401 W. Fifth Ave., Chicago 24, Ill.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Hupp Electronics Co., A Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 McLaughlin Corp., J. L. A., P. O. Box 529, Jolla, Calif.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 200-202.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 107.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.
 Stelma, Inc., 190 Henry St., Stamford, Conn.
 Technical Material Corp., The, P. O. Box 142, Mamaroneck, N. Y.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

RECEIVERS—Fixed Frequency

Aeronautical Communications Equipment, Inc., S. W. 37th Ave., Miami 33, Fla.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 Budelman Radio Corp., 376 Fairfield Ave., Stamford, Conn.
 Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Collins Radio Co., Cedar Rapids, Iowa.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 Creative Electronics Corp., 94 Lincoln Ave., Stamford, Conn.
 Dollar Co., Robert, Communications Equipment Div., 50 Drumm St., San Francisco 11, Calif.
 DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
 Erco Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Gyro Electronics Co., 325 Canal St., New York, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 I.D.E.A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 666.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Mack Electronics, A Div. of Mack Trucks, Inc., Plainfield, N. J.
 Motorola Communications and Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
 Resdel Engineering Corp., 330 S. Fair Oaks Ave., Pasadena 1, Calif.
 Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
 Shasta Div., Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif.
 Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.
 Technical Material Corp., The, P. O. Box 142, Mamaroneck, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Teletron Co., The, Bldg. #9, Broward County International Airport, Fort Lauderdale, Fla.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

RECEIVERS—f-m

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Babcock Radio Engineering Co., P. O. Box 3097, Van Nuys, Calif.
 Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Denson Electronics Corp., Ellington, Conn.
 Fada Radio & Electric Co., Inc., 525 Main St., Belleville, N. J.
 Fisher Radio Corp., 21-21 Forty Fourth Drive, Long Island City 1, N. Y.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Granco Products, Inc., 36-17 20th Ave., Long Island City, N. Y.
 Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.

Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 666.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Maryland Electronic Mfg. Corp., College Park, Md.
 National Electronics Laboratories, Inc., 1713 Kalamazoo Rd., N. W., Washington 9, D. C.
 Nems-Clarke, Inc., Silver Spring, Md.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Pedersen Electronics Co., Mt. Diablo Blvd., Lafayette, Calif.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
 Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.
 Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.
 Telsa Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.

RECEIVERS—f-m Multiplex

BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 Denson Electronics Corp., Ellington, Conn.
 Miller Electronics, 2840 Naomi St., Burbank, Calif.
 National Electronics Laboratories, Inc., 1713 Kalamazoo Rd., N.W., Washington 9, D. C.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 107.
 Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.

RECEIVERS—Loran

FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.

RECEIVERS—Marine

Airborne Electronics Co., 6813 Troost Ave., North Hollywood, Calif.
 Applied Electronics Co., Inc., 213 E. Grand Ave., South San Francisco, Calif.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Creative Electronics Corp., 94 Lincoln Ave., Stamford, Conn.
 Fisher Radio Corp., 21-21 Forty Fourth Drive, Long Island City 1, N. Y.
 Goslin Electric & Mfg., Co., 2921 W. Olive St., Burbank, Calif.
 Hudson American Corp., 25 W. 43rd St., New York 36, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Navigation Electronics Corp., 11616 Hart St., North Hollywood, Calif.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Pearce-Simpson, Inc., 3023 Coral Way, Miami 34, Fla.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Sonar Radio Corp., 3050 W. 21st St., Brooklyn 24, N. Y.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
 Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.

RECEIVERS—Microwave

See MICROWAVE ACCESSORIES

RECEIVERS—Panoramic

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
 C. G. S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
 Nems-Clarke, Inc., Silver Spring, Md.
PANORAMIC RADIO PRODUCTS, INC., 10 South Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 162 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.

RECEIVERS—Portable & Mobile

Andrea Radio Corp., 27-01 Bridge Plaza N., Long Island City 1, N. Y.
 Applied Electronics Co., Inc., 213 E. Grand Ave., South San Francisco, Calif.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 387.
 Dollar Co., Robert, Communications Equipment Div., 50 Drumm St., San Francisco 11, Calif.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
 Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
 Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Motorola Communications & Electronics, Inc., 4501 Augusta Blvd., Chicago 51, Ill.
 Multi-Products Co., 21470 Coolidge Hwy., Oak Park, Mich.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.

Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Trans-Aire Electronics, Inc., 195-02 Jamaica Ave., Hollis 23, N. Y.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

RECEIVERS—Radio Direction Finder

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
 Applied Electronics Co., Inc., 213 E. Grand Ave., South San Francisco, Calif.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Fisher Radio Corp., 21-21 Forty Fourth Drive, Long Island City 1, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 560.
 Navigation Electronics Corp., 11616 Hart St., North Hollywood, Calif.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
 Search Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733, 739.
 Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

RECEIVERS—Railroad

Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

RECEIVERS—Single Side Band

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
CLEGG LABORATORIES, DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
 Collins Radio Co., Cedar Rapids, Iowa.
 Creative Electronics Corp., 94 Lincoln Ave., Stamford, Conn.
 Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 265.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 Kahn Research Labs, Elizabeth Bldg., 22 Pine St., Freeport, N. Y.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.

Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 McLaughlin Corp., J. L. A., P. O. Box 529, La Jolla, Calif.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 560.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Nems-Clarke, Inc., Silver Springs, Md.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.
 Sorensen Industrial Electronic Co., Route 10, Dover, N. J.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

RECEIVERS—Transistor Operated

Audivox, Inc., 123 Worcester St., Boston 18, Mass.
 Automatic Radio Mfg. Co., Inc., 122 Brookline Ave., Boston, Mass.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Dollar Co., Robert, Communications Equipment Div., 50 Drumm St., San Francisco 11, Calif.
 Gardiner Electronics, 2545 E. Indian School Rd., Phoenix, Ariz.
 Gyro Electronics Co., 325 Canal St., New York, N. Y.
 I. D. E. A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
LEL, INC., 380 Oak St., Copague, N. Y. ADV. PG. 666.
 Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 Trans-Aire Electronics, Inc., 195-02 Jamaica Ave., Hollis 23, N. Y.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

RECEIVERS—uhf

Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
AIRBORNE INSTRUMENTS LABS., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Babcock Radio Engineering Co., P. O. Box 3097, Van Nuys, Calif.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
 Collins Radio Co., Cedar Rapids, Iowa.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Dubrow Development Co., 235B Penn St., Burlington, N. J.
 DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
 Engineering Associates, 434 Patterson Rd., Dayton 9, Ohio.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. ADV. PG. 510.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.

Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 Nems-Clarke, Inc., Silver Spring, Md.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
RADIO ENGINEERING LABORATORIES, INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 107.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Setchell Carlson, Inc., 330 Fifth Ave., New Brighton, Minn.
 Standard Telephones & Cables Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

RECEIVERS—vhf

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
AIRBORNE INSTRUMENTS LABS., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Babcock Radio Engineering Co., P. O. Box 3097, Van Nuys, Calif.
 Bendix Radio Div., Bendix Aviation Corp., Baltimore 4, Md.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
 Collins Radio Co., Cedar Rapids, Iowa.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
COOK & CO., FRANK R., 36 S. Santa Fe Drive, Denver 23, Colo. ADV. PG. 480.
 DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
 Eberline Instrument Div., P. O. Box 279, Santa Fe, N. M.
 Engineering Associates, 434 Patterson Rd., Dayton 9, Ohio.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 General Electric Co., Communications Products Dept., Electronics Park, Syracuse, N. Y.
 Gonset Co., 801 S. Main St., Burbank, Calif.
HAMMERLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 265.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Mohawk Electronic Research Labs., Inc., Box 126-A, RD 4, Amsterdam, N. Y.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 National Aeronautical Corp., Commerce Drive, Ft. Washington Industrial Park, Fort Washington, Pa.
 National Electronics Laboratories, Inc., 1713 Kalorama Rd., N. W., Washington 9, D. C.
 Nems-Clarke, Inc., Silver Spring, Md.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
RADIO ENGINEERING LABORATORIES, INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 107.
 Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.

Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Setchell Carlson, Inc., 330 Fifth Ave., New Brighton, Minn.
 Spivey Inc., James S., 4908 Hampden Lane, Washington 4, D. C.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Teletron Co., The Bldg. #9, Broward County International Airport, Fort Lauderdale, Fla.
 Telephonics Corp., Park Ave., Huntington, N. Y.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

RECEIVERS—Home

1. a-m Clock Radio
2. a-m phono Console
3. a-m phono Table
4. a-m Console
5. a-m Portable
6. a-m Table
7. a-m Vest Pocket
8. a-m/f-m phono, Console
9. a-m/f-m phono, Table
10. a-m/f-m Console
11. a-m/f-m Portable
12. a-m/f-m Table
13. f-m Console
14. f-m Portable
15. f-m Table
16. t-v Console
17. t-v Portable
18. t-v Table
19. f-m/t-v Console
20. a-m/f-m/t-v Console
21. a-m/f-m/t-v Table
22. a-m/f-m/t-v phono, Console
23. Recorder and Phonograph Combination
24. Built-in Wall Type

Admiral Corp., 3800 Cortland St., Chicago 47, Ill. 1-3-5-6-7-8-12-16-17-18.
 American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y. 8-9-10-11-12.
AMERICAN TELEVISION & RADIO CO., 300 E. 4th St., St. Paul 1, Minn. 16. ADV. P. 222.
 Andrea Radio Corp., 27-01 Bridge Plaza N., Long Island City 1, N. Y. 8-16-18-22.
 Ansley Mfg. Co., Arthur, Doylestown, Pa. 8-12.
 Arvin Industries, Inc., Radio & Television Div., Columbus, Ind. 1-5-6-7-12.
 Audio Industries, Inc., Michigan City, Ind. 2-3-8.
 Audivox, Inc., 123 Worcester St., Boston 18, Mass. 7.
 Automatic Radio Mfg. Co., Inc., 122 Brooklyn Ave., Boston, Mass. 1-3-5-6-7.
 Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J. 10-24.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. 15-24. ADV. PG. 614.
 Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif. 2-3-4-6-8-12-15-16-18.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec. 1-2-3-4-5-6-16-17-18.
 Conrac, Inc., Glendora, Calif. 24.
 Dubrow Development Co., 235B Penn St., Burlington, N. J. 1.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J. 1-2-3-4-5-6-8-9-10-12-16-17-18-19-20-21-22.
 Eckstein Radio & Television Co., 2601 E. Franklin Ave., Minneapolis 6, Minn. 1-6.
 Emerson Radio & Phonograph Corp., 14th & Coles Sts., Jersey City, N. J. 1-5-6-16-17-18.
 Fada Radio & Electric Co., Inc., 525 Main St., Belleville, N. J. 1-2-3-4-5-6-8-12-16-18-20-22.
 Fisher Radio Corp., 21-21 Forty Fourth Drive, Long Island City 1, N. Y. 8-23.
 Flush Wall Radio Co., 1012 Cleveland St., Clearwater, Fla. 24.
 Hallicrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill. 1-5-6-7-16-18.
HEATH CO. A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. 6. ADV. PG. 575.
 Hoffman Radio Div. of Hoffman Electronics Corp., 6200 S. Avalon Blvd., Los Angeles, Calif. 5-8-16-17-18.
 I. D. E. A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind. 5-6-7.
 Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J. 16-18.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y. 5.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif. 5-7.
INTERSEARCH, INC., 7 Arcadia Place, Cincinnati 8, Ohio. 5. ADV. P. 480.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa. 2-6.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. 18-23. ADV. PG. 358.

LEL, INC., 380 Oak St., Copiague, N. Y. 7. ADV. PG. 666.
 M. P. Engineering Co., Fairfield 3, Conn. 8-16-18-22-23-24.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind. 1-2-3-4-5-6-7-8-9-10-11-12-13-15-16-17-18-19-20-21-22-23-24.
 Miller Electronics, 2840 Naomi St., Burbank, Calif., 24.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa. 5-6.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif. 6-12.
 Olympic Radio & Television Co., 34-01 38th Ave., Long Island City, N. Y. 1-2-3-4-5-6-7-8-9-10-12-16-17-18-22-23.
 Philco Corp., C & Tioga Sts., Philadelphia 34, Pa. 1-2-3-5-6-8-12-16-18-22.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa. 1-2-3-5-6-7-9-11-12-15-16-17-18-19-20.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y. 9.
 Precision Radiation Instruments, Inc., 4223 W. Jefferson Blvd., Los Angeles 16, Calif. 8-12.
 Prescott Television Co., 7352 Beverly Blvd., Los Angeles 36, Calif. 16-18-22.
 Radio Corp. of America, Consumer Products Div., Camden 8, N. J. 1-2-3-4-5-6-8-9-10-12-16-17-18-23.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. 1-2-3-5-6-7-8-12-16-17-18-23. ADV. PG. 453 Third & Fourth Covers.
 Raytheon Mfg. Co., Television & Radio Div., 5921 W. Dickens Ave., Chicago 39, Ill. 1-16-18.
 Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn. 24.
 Setchell Carlson, Inc., 330 Fifth Ave., New Brighton, Minn. 16-17-18.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y. 12-24.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y. 2-8-10-24.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y. 7.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. 1-2-3-5-6-16-17-18. ADV. PG. 733-739.
 Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W. Woodside 77, N. Y. 5-6-24.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y. 12-15.
 Telequip Radio Co., 2559 W. 21st St., Chicago 8, Ill. 6-16-17-18.
 Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif. 6-9-15.
 Trans-Aire Electronics, Inc., 195-02 Jamaica Ave., Hollis 23, N. Y. 7.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif. 1-2-3-4-6-8-9-10-12-13-15.
 Webcor, Inc., Chicago, Ill. 2-3-8-9.
 Weingarten Electronic Labs., Inc., 7556 Milrose Ave., Los Angeles 46, Calif. 8-24.
 Wells-Gardner & Co., 2701 N. Kildare Ave., Chicago 39, Ill. 1-2-6-8-12-16-17-18.
 Zenith Radio Corp., 6001 Dickens Ave., Chicago 39, Ill. 1-2-3-5-6-7-8-12-16-17-18.

RECEIVING EQUIPMENT—vhf Omni-Range

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Collins Radio Co., Cedar Rapids, Iowa.
HAMMARLUND MFG. CO., 460 W. 34th St., New York 1, N. Y. ADV. PG. 265.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

RECORDERS—Blood Pressure, Electronic

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
 Hathaway Instrument Div., Hamilton Watch Co., 5800 E. Jewell Ave., Denver 22, Colo.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 26, Ill.
 Omega Instrument Co., Box 495M, Pasadena, Calif.
 Photon Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
 Videon Electronic Corp., 902 E. Michigan St., Indianapolis 2, Ind.

RECORDERS—DensitySee **RECORDERS—Specific Gravity****RECORDERS—Depth**

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
 Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Hathaway Instrument Div., Hamilton Watch Co., 5800 E. Jewell Ave., Denver 22, Colo.
 Kelvin & Hughes Ltd., New North Rd., Barkinside, Essex, England.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 468.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

RECORDERS—Disc

Allied Recording Products Co., 32-32 Greenpoint Ave., Long Island City 1, N. Y.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
 General Industries Co., Taylor & Olive Sts., Elyria, Ohio.
 Gotham Audio Development Corp., 2 W. 46th St., New York 36, N. Y.
 Presto Recording Corp., P. O. Box 500, Paramus, N. J.
 Rek-o-Kut Co., Inc., 38-01 Queens Blvd., Long Island City 1, N. Y.
 Scully Machine Co., 62 Walter St., Bridgeport, Conn.
 SoundScriber Corp., Middletown Ave., North Haven, Conn.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

RECORDERS—Drum, Magnetic

Alwac Corp., 13041 S. Cerise Ave., Hawthorne, Calif.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
 Cinema-Television Ltd., Worsley Bridge Rd., London S. E. 26, England.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 584.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
 General Transistor Western Corp., 6110 Venice Blvd., Los Angeles 34, Calif.
 Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
 Modac Div. of Airborne Instruments Laboratory, 864 Franklin Ave., Thornwood, N. Y.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Texas Division, Brush Electronics Co., 3732 Westheimer Rd., Houston 6, Texas.

RECORDERS—Electronic Rotary Stylus

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Scientific Associates, Inc., 2162 Piedmont Rd., N. E., Atlanta 9, Ga.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemon Ave., Dallas 9, Texas. ADV. PG. 280, 281.

RECORDERS—Electronic Self-Balancing Recorders and Indicators

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
 Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Electro Instruments, Inc., 3794 Rosecrans, San Diego 10, Calif.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Hayes Inc., C. I., 800 Wellington Ave., Cranston, R. I.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 183.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.

Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
 Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.
 Scientific Associates, Inc., 2162 Piedmont Rd., N. E., Atlanta 9, Ga.
 Streeter-Amet Co., Grayslake, Ill.
 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
WESTRONICS, INC., 3605 McCart St., Fort Worth, Texas. ADV. PG. 554.

RECORDERS—Facsimile

Acme Electronix Div. of NEA Service, Inc., West Third & Lakeside, Cleveland 13, Ohio.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
 Alden Systems, Inc., Alden Research Center, Westboro, Mass.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Haller, Raymond & Brown, Inc., State College, Pa.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 468.

RECORDERS—Film

Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Beckman & Whitley, Inc., 913 San Carlos Ave., San Carlos, Calif.
 Benson-Lehner Corp., 11930 W. Olympic Blvd., Los Angeles 64, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.
 Bill Jack Scientific Instrument Co., P. O. Box G-3, Solana Beach, Calif.
ELECTROMATION CO., 1646 Eighteenth St., Santa Monica, Calif. ADV. PG. 692.
 General Precision Laboratory, Inc., 63 Bedford Rd., Pleasantville, N. Y.
 Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
 Laboratoire Industriel de Physique Appliquee, 67 Rue M. A.-Columbiere, Bagnolet (Seine) France.
 Magnasyn Manufacturing Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Maurer, Inc., J. A., 37-01 31st St., Long Island City 1, N. Y.
 Miles Reproductor Co., Inc., 812 Broadway, New York 13, N. Y.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

RECORDERS—Film Thickness

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Foxboro Co., The, Foxboro, Mass.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.

RECORDERS—Fluid Conductivity, Electronic

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Manning, Maxwell & Moore, Inc., Industrial Products Div., 250 E. Main St., Stratford, Conn.
 Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.
 Nuclear Research Corp., Southampton, Pa.

RECORDERS—Fluid Flow, Electronic

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Leupold & Stevens Instruments, Inc., P. O. Box 5082, Portland 13, Ore.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
WAUGH ENGINEERING CO., 7842 Burnett Ave., Van Nuys, Calif. ADV. PG. 663.

RECORDERS—FrequencySee **INSTRUMENTS—Electrical Measuring****RECORDERS—Humidity, Electronic**

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Foxboro Co., The, Foxboro, Mass.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Serdex, Inc., 91 Cambridge St., Boston, Mass.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

RECORDERS—Intermittent

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
 Magne-Pulse Corp., 247 Crooks Ave., Clifton, N. J.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

RECORDERS—Liquid Level, Electronic

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
 Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-12, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Leupold & Stevens Instruments, Inc., P. O. Box 5082, Portland 13, Ore.
 Manning, Maxwell & Moore, Inc., Industrial Products Div., 250 E. Main St., Stratford, Conn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 Nuclear Research Corp., Southampton, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Radioactive Products, Inc., 2421 Wolcott, Ferndale, Mich.
 Shand and Jurs Co., Sub. of General Precision Equipment Corp., Carleton & Eighth Sts., Berkeley 10, Calif.

RECORDERS—MagneticSee **RECORDERS—Tape****RECORDERS—Materials Thickness, Electronic**

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Foxboro Co., The, Foxboro, Mass.
 Nuclear Research Corp., Southampton, Pa.

Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.

RECORDERS—Mechanical

Amthor Testing Instrument Co., 45-53 Van Sinderen Ave., Brooklyn 7, N. Y.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
California Computer Products, 3927 W. Jefferson Blvd., Los Angeles 16, Calif.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
Highland Engineering, 1732 Berkeley, Santa Monica, Calif.
Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
Leupold & Stevens Instruments, Inc., P.O. Box 5082, Portland 13, Ore.
North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

RECORDERS—Micro-Micro-Amp.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.

RECORDERS—Millivolt

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.
Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 15 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 26, Ill.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
WESTRONICS, INC., 3605 McCart St., Fort Worth, Texas. ADV. PG. 554.

RECORDERS—Moisture, Electronic

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
Foxboro Co., The, Foxboro, Mass.
Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
Weston Electrical Instrument Corp., sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

RECORDERS—Oscillographic See OSCILLOGRAPHS

RECORDERS—Oxygen

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
Beckman Inc., Arnold O., 1020 Mission St., South Pasadena, Calif.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.

RECORDERS—pH

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.
Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 15 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.

RECORDERS—Potentiometer

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Bruehl & Kjaer, Naerum, Denmark.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 15 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
Servonics, Inc., 822 N. Henry St., Alexandria, Va.
Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 174, 175, 411.
West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
WESTRONICS, INC., 3605 McCart St., Fort Worth, Texas. ADV. PG. 554.

RECORDERS—Power Level See INSTRUMENTS—Electrical Measuring

RECORDERS—Pressure, Electronic

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Chesapeake Instrument Corp., Shadyside, Md.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
Foxboro Co., The, Foxboro, Mass.
Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
Manning, Maxwell & Moore, Inc., Industrial Products Div., 250 E. Main St., Stratford, Conn.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

RECORDERS—Smoke and Combustion, Electronic

Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Combustion Control Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.

Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
Standard Instrument Corp., 657 Broadway, New York 12, N. Y.

RECORDERS—Sound Level

Audio-Master Corp., 17 E. 45th St., New York 17, N. Y.
Bruehl & Kjaer, Naerum, Denmark.
Chesapeake Instrument Corp., Shadyside, Md.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Miles Reproductor Co., Inc., 812 Broadway, New York 13, N. Y.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
SOUND APPARATUS CO., Stirling, N. J. ADV. PG. 20.
Technical Products Co., Instrument Div., 6670 Lexington Ave., Los Angeles 38, Calif.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

RECORDERS—Sound and Phonograph

Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
Presto Recording Corp., P. O. Box 500, Paramus, N. J.
Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

RECORDERS—Specific Gravity, Electronic

Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.
Foxboro Co., The, Foxboro, Mass.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.
Niagara Electron Laboratories, Andover, N. Y.
Nuclear Research Corp., Southampton, Pa.
Philadelphia Scientific Glass Co., Quakertown, Pa.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.

RECORDERS—Strain

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
Austin Co., The, 76 Ninth Ave., New York 11, N. Y.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Manning, Maxwell & Moore, Inc., Industrial Products Div., 250 E. Main St., Stratford, Conn.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas, Texas. ADV. PG. 280, 281.
Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.

RECORDERS—Tape

1. Cellophane Tape
2. Magnetic Tape

Allied Radio Corp., 100 N. Western Ave., Chicago 80, Ill. 2.
Alwac Corp., 13041 S. Cerise Ave., Hawthorne, Calif. 2.
American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
AMPEX CORP., 934 Charter St., Redwood City, Calif. 2. ADV. PG. 285.

Amplifier Corp. of America, 396 Broadway, New York 13, N. Y. 2.

Ampro Corp., 1345 Diversey Parkway, Chicago 14, Ill. 2.

Associated Engineering & Mfg. Co., Glen Ridge, N. J. 1-2.

Audio-Master Corp., 17 E. 45th St., New York 17, N. Y. 2.

Audiomation Laboratories, 7230 Clinton Rd., Upper Darby 15, Pa. 2.

Berlant Concertone-Audio Div. of American Electronics Inc., 655 W. Washington Blvd., Los Angeles 15, Calif. 2.

Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif. 2.

Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J. 2.

Broadcast Equipment Specialties Corp., P. O. Box 149, Beacon, N. Y. 2.

Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio. 2.

Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif. 2.

DAVIS LABORATORIES DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 10721 Hanna St., Beltsville, Md. 2. ADV. PG. 446.

Daystrom Electric Corp., 807 Main St., Poughkeepsie, N. Y. 2.

Dictaphone Corp., 420 Lexington Ave., New York 17, N. Y. 2.

Dubrow Development Co., 235B Penn St., Burlington, N. J. 2.

Dukane Corp., St. Charles, Ill. 1-2.

Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn. 2.

Electro Data Div. of Burroughs Corp., 460 Sierra Madre Villa, Pasadena 6, Calif. 2.

ELECTROMATION CO., 1646 Eighteenth St., Santa Monica, Calif. 1-2. ADV. PG. 692.

FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. 2. ADV. PG. 594.

Ferrodynamics Corp., Gregg & Route 17, Lodi, N. J. 2.

General Kinetics Inc., 555 23rd St., S., Arlington 2, Va. 2.

Gotham Audio Development Corp., 2 W. 46th St., New York 36, N. Y. 2.

GULTON INDUSTRIES, INC., Metuchen, N. J. 2. ADV. PG. 425.

International Radio & Electronics Corp., Elkhart, Ind. Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind. Magnecord, Inc., 1101 S. Kilbourn Ave., Chicago 24, Ill. Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn. 2.

Midwestern Instruments, 41 & Sheridan Rd., Tulsa, Okla. 2.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn. 2.

Modac Div. of Airborne Instruments Laboratory, 864 Franklin Ave., Thornwood, N. Y. 2.

Mohawk Business Machines Corp., 944 Halsey St., Brooklyn 33, N. Y. 2.

North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif. 2.

Olympic Radio & Television Co., 34-01 38th Ave., Long Island City, N. Y. 2.

Orradio Industries, Inc., Shamrock Circle, Opelika, Ala. 2.

Pelce Wire Recorder Corp., 5900 Northwest Highway, Chicago 31, Ill. 2.

Permo, Inc., 6415 Ravenswood Ave., Chicago 26, Ill. 2.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y. 2.

Premier Electronic Laboratories, 382 Lafayette St., New York, N. Y. 2.

Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass. 2.

Presto Recording Corp., P. O. Box 500, Paramus, N. J. 2.

Radio Corp. of America, Consumer Products Div., Camden 8, N. J. 1.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. 2. ADV. PG. 453, Third & Fourth Covers.

Rangertone, Inc., 73 Winthrop St., Newark 4, N. J. 2.

Revere Camera Co., 320 E. 21st St., Chicago 16, Ill. 2.

Seeburg J. P., A Div. of Fort Pitt Industries, Inc., 1500 N. Dayton St., Chicago 22, Ill. 2.

Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y. 2.

Sorensen Industrial Electronic Co., Route 10, Dover, N. J. SoundScriber Corp., Middletown Ave., North Haven, Conn. 2.

SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. 2. ADV. PG. 294, 295.

Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif. 2.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y. 1-2.

V-M Corp., Benton Harbor, Mich. 2.

VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. 2. ADV. PG. 394.

Webcor, Inc., Chicago, Ill. 2.

Webster Electric Co., 1900 Clark St., Racine, Wis. 2.

Westrex Corp., 111 Eighth Ave., New York 11, N. Y. 2.

RECORDERS—Telemetering

See INSTRUMENTS—Electrical Measuring

RECORDERS—Telephone Recording Equipment

Audio-Master Corp., 17 E. 45th St., New York 17, N. Y.

Dictaphone Corp., 420 Lexington Ave., New York 17, N. Y.

Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y. Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.

Magnecord, Inc., 1101 S. Kilbourn Ave., Chicago 24, Ill. Miles Reproduser Co., Inc., 812 Broadway, New York 3, N. Y.

Mohawk Business Machines Corp., 944 Halsey St., Brooklyn 33, N. Y.

North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.

Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.

Pelce Wire Recorder Corp., 5900 Northwest Highway, Chicago 31, Ill.

SoundScriber Corp., Middletown Ave., North Haven, Conn.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

RECORDERS—Temperature, Electronic

Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.

Foxboro Co., The, Foxboro, Mass.

Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Manning, Maxwell & Moore, Inc., Industrial Products Div., 250 E. Main St., Stratford, Conn.

Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y. Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.

Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.

Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.

Philadelphia Scientific Glass Co., Quakertown, Pa.

Serdex, Inc., 91 Cambridge St., Boston, Mass.

West Instrument Corp., 4363 W. Montrose Ave., Chicago 43, Ill.

Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

WESTRONICS, INC., 3605 McCart St., Fort Worth, Texas. ADV. PG. 554.

RECORDERS—Timing

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.

Amelco, Inc., 2040 Colorado Ave., Santa Monica, Calif.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.

Clary Corp., San Gabriel, Calif.

Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.

Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.

HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. ADV. PG. 157.

Ingraham Co., E., Bristol, Conn.

Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.

Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.

Midwestern Instruments, 41 & Sheridan Rd., Tulsa, Okla.

Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 26, Ill.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Standard Instrument Corp., 657 Broadway, New York 12, N. Y.

TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 468.

Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

RECORDERS—Torque, Electronic

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.

Chatillon & Sons, John, 85 Cliff St., New York, N. Y.

Highland Engineering, 1732 Berkeley, Santa Monica, Calif.

Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.

Midwestern Instruments, 41 & Sheridan Rd., Tulsa, Okla.

Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 26, Ill.

Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.

RECORDERS—Transient

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.

GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.

Magne-Pulse Corp., 247 Crooks Ave., Clifton, N. J.

Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.

Minneapolis-Honeywell Regulator Co., Industrial Div., Wayne & Windrim Aves., Philadelphia 44, Pa.

Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 26, Ill.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

RECORDERS—Vacuum

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.

Foxboro Co., The, Foxboro, Mass.

Hastings-Raydist, Inc., Hampton 9, Va.

Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston, Mass.

Manning, Maxwell & Moore, Inc., Industrial Products Div., 250 E. Main St., Stratford, Conn.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.

NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.

U. S. Gauge Div., American Machine & Metals, Inc., Sellersville, Pa.

Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

RECORDERS—Weight, Electronic

Clary Corp., San Gabriel, Calif.

Foxboro Co., The, Foxboro, Mass.

Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.

Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.

Niagara Electron Laboratories, Andover, N. Y.

Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 26, Ill.

Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.

Schaevlitz Engineering, P. O. Box 505, Camden 1, N. J.

RECORDERS—Wire

Aurex Corp., 1117 N. Franklin St., Chicago 10, Ill.

Pelce Wire Recorder Corp., 5900 Northwest Highway, Chicago 31, Ill.

Sonic Recording Products, Inc., 58 Mill Rd., Freeport, N. Y.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

RECORDING HEADS

See HEADS—Recording

RECORDING TAPE

See TAPE—Recording

RECORDING WIRE

See WIRE—Recording

RECORDS—Phonograph

Audio-Master Corp., 17 E. 45th St., New York 17, N. Y.

Cook Laboratories, 101 Second St., Stamford, Conn.

Decca Records, Inc., 50 West 57th St., New York 19, N. Y.

Radio Corp. of America, Consumer Products Div., Camden 8, N. J.

RECTIFIERS—Dry Disc

See RECTIFIERS—Copper Oxide
RECTIFIERS—Copper Sulphide

RECTIFIERS

1. Germanium Diode
2. Germanium Area Type
3. Copper Oxide
4. Copper Sulphide
5. Selenium
- 5a. Silicon
6. Tube

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. 6. ADV. PG. 673.

Arnhold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y. 1.

Automatic Mfg. Div. of General Instrument Corp., 65 Gouverneur St., Newark, N. J. 5a.

Berkshire Laboratories, 580 Bank Village, Greenville, N. H. 5.

Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J. 5-5a.

BRADLEY LABS., INC., 170 G. Columbus Ave., New Haven 11, Conn. 3-5. ADV. PG. 260.

CHATHAM ELECTRONICS DIV. OF TUNG-SOL ELECTRIC, INC., 630 W. Mt. Pleasant Ave., Livingston, N. J. 5-6. ADV. PG. 393.

Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio. 6.

Clark Electronic Labs., Box 165, Palm Springs, Calif. 1-5-6.

Conant Laboratories, 6500 O St., Lincoln 5, Neb. 3-5.

CONTINENTAL ELECTRIC CO., 6 N. Michigan Ave., Chicago 2, Ill. 6. ADV. PG. 496.

EITEL-McCULLOUGH, INC., San Bruno, Calif. 6. ADV. PG. 128, 129.

Electronic Devices, Inc., Precision Rectifier Div., 429 12th St., Brooklyn, N. Y. 5.

ELECTRONS, INC., 127 Sussex Ave., Newark 3, N. J. 6. ADV. PG. 318.

Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill. 5-5a.

Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J. 1-5.

GATES ELECTRONIC CO., 2090 Barnes Ave., Bronx 62, N. Y. 5. ADV. PG. 678.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 2-3-5. ADV. PG. 1-12.

General Electric Co., Ltd. of England, 80 Shore Rd., Port Washington, N. Y. 1-5.

GENERAL ELECTRIC CO., SEMI-CONDUCTOR PRODUCTS DEPT., Electronics Park, 1224 W. Genesee St., Syracuse, N. Y. 5-a. ADV. PG. 19.

GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. 6. ADV. PG. 13-15.

General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y. 1-2-3-4-5.

Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J. 2-3-4-5-5a-6.

HOFFMAN SEMI-CONDUCTOR DIV. OF HOFFMAN ELECTRONICS CORP., 930 Pitner Ave., Evanston, Ill. 5a. ADV. PG. 443.

HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. 1-6. ADV. PG. 340-343.

INTERNATIONAL RECTIFIER CORP., 1521 E. Grand Ave., El Segundo, Calif. 1-2-5-5a. ADV. PG. 218.

INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. 5. ADV. PG. 188-192.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., COMPONENTS DIV., 88 Kingsland Rd., Clifton, N. J. 5. ADV. PG. 355-357.

King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio. 6.

Knopp Inc., 4224 Holden St., Oakland 8, Calif. 5.

Lewis & Kaufman, Ltd., P. O. Box 337, Los Gatos, Calif. 6.

Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind. 4.

MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. 1-5-6. ADV. PG. 527.

MOTOROLA, INC., SEMI-CONDUCTOR PRODUCTS DIV., 5005 E. McDowell Rd., Phoenix, Ariz. 5a. ADV. PG. 639.

National Electronics, Inc., Geneva, Ill. 6.

OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. 1-2-5-6. ADV. PG. 650.

Pacific Semiconductors, Inc., 10451 W. Jefferson, Culver City, Calif. 1-5a.

PYRAMID ELECTRIC CO., 1445 Hudson Blvd., North Bergen, N. J. 5. ADV. PG. 463.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. 5-6. ADV. PG. 453, Third & Fourth Covers.

RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. 1-5-6. ADV. PG. 453, Third & Fourth Covers.

Radio Development & Research Corp., 100 Pennsylvania Ave., Paterson 3, N. J. 5.

RADIO RECEPTOR CO., 240 Wythe Ave., Brooklyn 11, N. Y. 1-5-5a. ADV. PG. 68, 69.

Rammy Mfg. Co., 1624 E. First St., Los Angeles 23, Calif. 5.

Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass. 1-5a-6.

RECTICO INC., 963 Frelinghuysen Ave., Newark 5, N. J. 5. ADV. PG. 695.

Sanford Miller Co., 691 Bedford Ave., Brooklyn 6, N. Y. 5.

SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. 5-5a. ADV. PG. 434.

Schauer Mfg. Corp., 4521 Alpine Ave., Cincinnati 36, Ohio. 3.

Sel-Rex Corp., Rectifier Div., 155 Manchester Place, Newark 4, N. J. 2-3-5-5a.

Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England. 1-2-5-6.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. 1-5a-6. ADV. PG. 733-739.

Syntro Corp., 243 Lexington, Homer City, Pa. 5.

TAYLOR TUBES, INC., 2312 Wabansia Ave., Chicago 47, Ill. 6. ADV. PG. 496.

TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. 1-2-3-4-5-5a-6. ADV. PG. 549.

TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. 5a. ADV. PG. 280, 281.

TRANSITRON, INC., 186 Granite St., Manchester, N. H. 6. ADV. PG. 326.

TRANSITRON ELECTRONIC CORP., 168 Albion St., Wakefield, Mass. 1-5a. ADV. PG. 176, 177.

UNION SWITCH & SIGNAL DIV. OF WESTINGHOUSE AIR BRAKE CO., Pittsburgh 18, Pa. 3-5. ADV. PG. 384, 385.

United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass. 1-2-6.

Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif. 6.

VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. 6. ADV. PG. 476.

Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo. 5.

WALLSON ASSOCIATES, LTD., 963 Frelinghuysen Ave., Newark 5, N. J. 5a. ADV. PG. 691.

Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira, N. Y. 5a.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. 1-2-3-5. ADV. PG. 205-216.

RECTIFIERS—Metallic, Power Supplies

American Rectifier Corp., 95 Lafayette St., New York 13, N. Y.

AMERICAN TELEVISION & RADIO CO., 300 E. Fourth St., St. Paul 1, Minn. ADV. PG. 222.

Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.

BRADLEY LABS., INC., 170 G. Columbia Ave., New Haven 11, Conn. ADV. PG. 260.

CHRISTIE ELECTRIC CORP., 3410 W. 67th St., Los Angeles 43, Calif. ADV. PG. 528.

Clark Electronic Labs., Box 165, Palm Springs, Calif.

Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.

Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.

GATES ELECTRONIC CO., 2090 Barnes Ave., Bronx 62, N. Y. ADV. PG. 678.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y.

Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.

Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.

KEPCO LABS., INC., 131-38 Sanford Ave., Flushing 55, N. Y. ADV. PG. 45-48.

Leach Corp., Inet-Palmer Div., 4441-43 S. Santa Fe Ave., Los Angeles 58, Calif.

Lee Electric & Mfg. Co., 2806 Clearwater St., Los Angeles 39, Calif.

MACARR, INC., 2543 Boston Rd., Bronx 67, N. Y. ADV. PG. 640.

MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.

MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.

MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 61.

MODEL RECTIFIER CORP., 1065 Utica Ave., Brooklyn 3, N. Y. ADV. PG. 665, 667.

Motoresearch Co., 1600 Junction Ave., Racine, Wis.

NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 369, 370.

North American Research Labs., Inc., 725 Lexington Ave., Kenilworth, N. J.

OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 650.

Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.

PERKIN ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. ADV. PG. 67.

Power Equipment Co., 5740 Nevada, East, Detroit 34, Mich.

Power Supplies, Inc., 1007 Olive St., Highland, Ill.

PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.

Rapid Electric Co., 2881 Middletown Rd., Bronx 61, N. Y.

Sanford Miller Co., 691 Bedford Ave., Brooklyn 6, N. Y.

Schauer Mfg. Corp., 4521 Alpine Ave., Cincinnati 36, Ohio.

Sel-Rex Corp., Rectifier Div., 155 Manchester Place, Newark 4, N. J.

Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.

Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.

Syntro Corp., 243 Lexington, Homer City, Pa.

TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.

TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. ADV. PG. 661.

Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.

Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill.

UNION SWITCH & SIGNAL DIV. OF WESTINGHOUSE AIR BRAKE CO., Pittsburgh 18, Pa. ADV. PG. 384, 385.

United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.

WALLSON ASSOCIATES LTD., 963 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 691.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

RECTIFIERS—Metallic Stack

Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.

BRADLEY LABS., INC., 170 G. Columbus Ave., New Haven 11, Conn. ADV. PG. 260.

CHATHAM ELECTRONICS DIV. OF TUNG-SOL ELECTRIC, INC., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 393.

Clark Electronic Labs., Box 165, Palm Springs, Calif.

Electronic Devices, Inc., Precision Rectifier Div., 429 12th St., Brooklyn, N. Y.

Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.

GATES ELECTRONIC CO., 2090 Barnes Ave., Bronx 62, N. Y. ADV. PG. 678.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

GENERAL ELECTRIC CO., SEMI-CONDUCTOR PRODUCTS DEPT., Electronics Park, 1223 W. Genesee St., Syracuse, N. Y. ADV. PG. 19.

General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y.

Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.

INTERNATIONAL RECTIFIER CORP., 1521 E. Grand Ave., El Segundo, Calif. ADV. PG. 218.

INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.

MODEL RECTIFIER CORP., 1065 Utica Ave., Brooklyn 3, N. Y. ADV. PG. 665, 667.

OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 650.

PERKIN ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. ADV. PG. 67.

RADIO RECEPTOR CO., 240 Wythe Ave., Brooklyn 11, N. Y. ADV. PG. 68, 69.

Rapid Electric Co., 2881 Middletown Rd., Bronx 61, N. Y.

RECTICO, INC., 963 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 695.

SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 434.

Schauer Mfg. Corp., 4521 Alpine Ave., Cincinnati 36, Ohio.

Sel-Rex Corp., Rectifier Div., 155 Manchester Place, Newark 4, N. J.

Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.

Syntro Corp., 243 Lexington, Homer City, Pa.

TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.

Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill.

TRANSITRON ELECTRONIC CORP., 168 Albion St., Wakefield, Mass. ADV. PG. 176, 177.

United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

UNION SWITCH & SIGNAL DIV. OF WESTINGHOUSE AIR BRAKE CO., Pittsburgh 18, Pa. ADV. PG. 384, 385.

Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

RECTIFIERS—Tube

See TUBES—Rectifying

RECTIFIERS—Tube Rectifying Units

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.

MAGNATRAN, INC., P. O. Box 211, Kearny, N. J. ADV. PG. 383.

MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 61.

MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. ADV. PG. 527.

NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 369, 370.

OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 650.

Power Equipment Co., 5740 Nevada, East, Detroit 34, Mich.

PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.

Rectifier Engineering Co., Inc., 1803 E. Seventh St., Los Angeles 21, Calif.

Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.

TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.

TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill.

United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

WALLSON ASSOCIATES, LTD., 963 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 691.

REELS—Tape Recording & Telemetering

AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 580.
Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
DAVIES LABORATORIES DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 10721 Hanna St., Beltsville, Md. ADV. PG. 446.
Electro Data Div. of Burroughs Corp., 460 Sierra Madre Villa, Pasadena 6, Calif.
Fidelitone, Inc., 6415 Ravenswood, Chicago 26, Ill.
Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
Midland Paint & Varnish Co., 9115 Reno Ave., Cleveland 5, Ohio.
Orradio Industries, Inc., Shamrock Circle, Opelika, Ala.
Permo, Inc., 6415 Ravenswood Ave., Chicago 26, Ill.
STANDARD RECORD MFG. CO., 70 N. San Gabriel Blvd., Pasadena, Calif. ADV. PG. 655.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.

REFLECTORS—Passive

COOK CO., FRANK R., 36 S. Santa Fe Drive, Denver 23, Colo. ADV. PG. 480.
Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
GABRIEL ELECTRONICS DIV., THE GABRIEL CO., 135 Crescent Rd., Needham Heights 94, Mass. ADV. PG. 382.
I-T-E CIRCUIT BREAKER CO., SPECIAL PRODUCTS DIV., 601 E. Erie Ave., Philadelphia 34, Pa. ADV. PG. 474, 475.
MicroRect Co., 2300 S. 25th St., Salem, Ore.
Tower Construction Co., 2700 Hawkeye Drive, Sioux City, Iowa.

REGISTERS—Shift

BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
KEPCO LABS., INC., 131-38 Sanford Ave., Flushing 55, N. Y. ADV. PG. 45-48.
Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.
Magnetics Research Co., Cor. Grove St. & E. Post Rd., White Plains, N. Y.
NAVIGATION COMPUTER CORP., 1621 Snyder Ave., Philadelphia 45, Pa. ADV. PG. 585.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
Sprague Electric Co., 125 Marshall St., North Adams, Mass.

REGULATORS—Current

ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
Electric Regulator Corp., Pearl St., Norwalk, Conn.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
Engineered Magnetics Div. of Gulton Mfg. Corp., 11818 Teale St., Culver City, Calif.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
Hevi-Duty Electric Co., Milwaukee 1, Wis.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Modern Industries Inc., 2601 Colorado Ave., Santa Monica, Calif.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 369, 370.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
SORENSEN & CO., INC., Richards Ave., Norwalk, Conn. ADV. PG. 151-154.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Transistor Devices, Inc., 730 Boulevard, Kenilworth, N. J.
United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
VECTROL ENGINEERING, INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
WALLSON ASSOCIATES, LTD., 963 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 691.
Warren Mfg. Co., Inc., The Newton Rd., Littleton, Mass.
Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.

REGULATORS—Frequency

AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
Electric Regulator Corp., Pearl St., Norwalk, Conn.

ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
Engineered Magnetic Div. of Gulton Mfg. Corp., 11818 Teale St., Culver City, Calif.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austel Place, Long Island City 1, N. Y.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Modern Industries Inc., 2601 Colorado Ave., Santa Monica, Calif.
Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
Regulator Equipment Corp., 100 Pennsylvania Ave., Paterson 3, N. J.
SORENSEN & CO., INC., Richards Ave., Norwalk, Conn. ADV. PG. 151-154.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
VECTROL ENGINEERING, INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
Warren Mfg. Co., Inc., The Newton Rd., Littleton, Mass.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

REGULATORS—Voltage Regulators and Stabilizers

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 673.
Airmec Ltd., High Wycombe, Buckinghamshire, England.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
Berkshire Laboratories, 580 Bank Village, Greenville, N. H.
Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
BRIGGS ASSOCIATES, INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
C B C Electronics Co., Inc., 2601 Howard St., Philadelphia 33, Pa.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
CURTISS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
Dynamic Controls Co., 1955 Massachusetts Ave., Cambridge, Mass.
Electric Regulator Corp., Pearl St., Norwalk, Conn.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
Electronic Products Co., 111 E. 3rd St., Mt. Vernon, N. Y.
Engineered Magnetic Div. of Gulton Mfg. Corp., 11818 Teale St., Culver City, Calif.
Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
Helipot Corp., Newport Beach, Calif.
HOFFMAN SEMICONDUCTOR DIV. OF HOFFMAN ELECTRONICS CORP., 930 Pitner Ave., Evanston, Ill. ADV. PG. 443.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
Jack & Heintz, Inc., Cleveland 1, Ohio.
KEPCO LABS., INC., 131-38 Sanford Ave., Flushing 55, N. Y. ADV. PG. 45-48.
Lee Electric & Mfg. Co., 2806 Clearwater St., Los Angeles 39, Calif.
McKay Electric Co., 19790 Stahelin Ave., Detroit 19, Mich. ADV. PG. 638.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292, 293.
Maxson Instruments, A Div. of The W. L. Maxson Corp., 47-37 Austel Place, Long Island City 1, N. Y.
MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 61.
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Modern Industries Inc., 2601 Colorado Ave., Santa Monica, Calif.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 369, 370.
PERKIN ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. ADV. PG. 67.
PRECISE MEASUREMENTS CO., R.D.#1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.

Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
RATHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
Regulator Equipment Corp., 100 Pennsylvania Ave., Paterson 3, N. J.
Servomex Controls Ltd., 80 Shore Rd., Port Washington, N. Y.
Servo-Tek Products Co., Inc., 1086 Goffie Rd., Hawthorne, N. J.
Signalite, Inc., 37-41 Neptune Highway, Neptune, N. J.
SOLA ELECTRIC CO., 4633 W. 16th St., Chicago 50, Ill. ADV. PG. 269-272.
SORENSEN & CO., INC., Richards Ave., Norwalk, Conn. ADV. PG. 151-154.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
SUPERIOR ELECTRIC CO., THE, 5000 Bradley Ave., Bristol, Conn. ADV. PG. 96-99.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
Transistor Devices, Inc., 730 Boulevard, Kenilworth, N. J.
United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
VECTROL ENGINEERING, INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 632.
Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
Warren Mfg. Co., Inc., The Newton Rd., Littleton, Mass.
Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.

RELAY COILS

See COILS—Relay

RELAYS—Capacitance Operated

See CONTROLS—Capacitance Operated

RELAYS

(h) indicates hermetically sealed

1. Coaxial
2. Cross-Bar
3. d'Arsonval
4. Differential
5. Electronic, Resistance Activated
6. Frequency Selective
7. High Voltage
8. Impulse
9. Keying and Break-in
10. Latching
11. Mercury
12. Overload
13. Overvoltage & Undervoltage
14. Passive Microwave
15. Photoelectric
16. Polarized
17. Power
18. Rotary
19. Sensitive
20. Sequence
21. Stepping
22. Sub-Miniature
23. Telephone
24. Temperature Compensated
25. Time Delay
26. Vacuum Contact
27. Vibrating Reed Type

A/G'A Div. of Elastic Stop Nut Corp. of America, 1027 Newark Ave., Elizabeth, N. J. 25.
Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing, Mich. 25.
ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. 22. ADV. PG. 487.
ADAMS & WESTLAKE CO., Michigan St., Elkhart, Ind. 11-12-13-17-19-25. ADV. PG. 58, 59.
Aemco, Inc., 62 State St., Mankato, Minn. 7-10-17-19-22-23.
Aircraft Transformer Corp., 234 Creek Rd., Kearsburg, N. J. 17.
Airmec, Ltd., High Wycombe, Buckinghamshire, England. 15.
Allard Instrument Corp., 146 E. Second St., Mineola, N. Y. 10-13.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. 12-13-25. ADV. PG. 194.
ALLIED CONTROL CO., INC., 2 East End Ave., New York 21, N. Y. 1-4-7-8-9-10-12-13-16-17-18-19-22-23-24-25-26. ADV. PG. 126, 127.
American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md. 19-25.

AMPERITE CO., INC., 561 Broadway, New York 12, N. Y. 25. ADV. PG. 229. (h)

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. 5-15-22. ADV. PG. 691. (h)

Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn. 10-12-13-17-19-20-25. (h)

Artisan Electronic Corp., 171 Ridgeland Ave., Morristown, N. J. 7-10. (h)

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. 3-4-19. ADV. PG. 504, 505. (h)

Automatic Electric Sales Corp., 1033 W. Van Buren St., Chicago 7, Ill. 8-10-11-16-21-23-25. (h)

AUTOMATIC METAL PRODUCTS CORP., 315 Berry St., Brooklyn 11, N. Y. ADV. PG. 626. (h)

Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J. 4-5-6-7-10-12-13-17-19-25. (h)

Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif. (h)

Babcock Relays, Inc., 1640 Monrovia St., Costa Mesa, Calif. 4-16-19-22. (h)

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. 16. ADV. PG. 430. (h)

Belltron Mfg. Co., Inc., 400 Hoover Ave., Bloomfield, N. J. 25. (h)

Bennett Co., Inc., R. P. Frederick, Md. 1-2-4-5-7-8-9-10-12-13-15-16-17-19-20-21-22-23-25. (h)

Bergen Laboratories, 247 Crooks Ave., Clifton, N. J. 18-21. (h)

Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa. 6-27. (h)

Blonder-Tongue Laboratories, Inc., 9-25 Ailing St., Newark 2, N. J. 25. (h)

Branson Corp., Jefferson Rd., Whippany, N. J. 16-17-22-23-24-25. (h)

Bristol Co., The P. O. Box 1790 EBG, Waterbury 20, Conn. 4-16-19-22-24-26-27. (h)

Bristol Motor Div., Vocaline Co. of America, Inc., Old Saybrook, Conn. 25. (h)

Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif. 22. (h)

CG Electronics Div. of Gulton Industries, Inc., 305 Dallas St., N.E., Albuquerque, N. M. 27. (h)

Clare & Co., C. P., 3101 Pratt Blvd., Chicago 45, Ill. 9-10-11-16-17-21-22-23-25. (h)

Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio. 7-10-12-13-16-20-25. (h)

COMAR ELECTRIC CO., 3349 W. Addison, Chicago 18, Ill. 10-23. ADV. PG. 432. (h)

Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill. 1-4-10-12-13-18-20-21-22-23-24-25. (h)

Couch Ordnance, Inc., Relay Div., 3 Arlington St., North Quincy, Mass. 18-12. (h)

Cramer Controls Corp., Box 13, Centerbrook, Conn. 25. (h)

CURTISS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. 25. ADV. PG. 110. (h)

Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis. 10-12-13-17. (h)

Davis Electric Co., Cape Girardeau, Mo. 10-23. (h)

Deitz Co., S. J., 9 E. Wesley St., South Hackensack, N. J. (h)

Delfron, Inc., 2905 N. Leithgow St., Philadelphia 33, Pa. 5. (h)

Delfron Corp., 1507 Riverside Drive, Los Angeles 31, Calif. 22. (h)

Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass. 25. (h)

Durakool, Inc., 1010 N. Main St., Elkhart, Ind. 11-25. (h)

Eagle Signal Corp., Moline, Ill. 10-25. (h)

Ebert Electronics Corp., 212-26 Jamaica Ave., Queens Village 28, N. Y. 10-11-19-25. (h)

EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. 16-19-25. ADV. PG. 144-146. (h)

Electric Regulator Corp., Pearl St., Norwalk, Conn. 6-13. (h)

Electrical Products Corp., 1100 N. Main St., Los Angeles 12, Calif. 17-18. (h)

Electro-Mechanical Specialties Co., Inc., 1016 N. Highland Ave., Los Angeles 38, Calif. 2-4-12-17-19. (h)

Electro-Switch & Controls, Inc., 5755 Camille Ave., Culver City, Calif. 8-10-17-19-23-24. (h)

ELECTRO TEC CORP., South Hackensack, N. J. 22. ADV. PG. 149. (h)

Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich. 15. (h)

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif. 6-9-10-13-17-18-19-20-21-22-24-25. (h)

ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. 11-17. ADV. PG. 286. (h)

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y. 1-8-17-21-25. (h)

Elesta Ltd., Bad Ragaz, Switzerland. 5-15-25. (h)

ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. 1-2-4-5-6-7-8-9-10-12-13-16-17-18-19-21-22-23-25. ADV. PG. 579. (h)

ELECTROMATION CO., 1646 Eighteenth St., Santa Monica, Calif. 1-14-22. ADV. PG. 692. (h)

Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J. 15. (h)

Falcon Electronics Corp., 308 William St., Harrison, N. J. 13-22-24-25. (h)

FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. 5. ADV. PG. 546. (h)

Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J. 12. (h)

FILTRON, INC., 30 Sagamore Hill Drive, Port Washington, N. Y. 10-12-13-17-18-22. ADV. PG. 471 (h)

Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind. 21. (h)

Five Star Co., 10 W. Main St., Plantsville, Conn. 17-19. (h)

G-V CONTROLS, INC., 28 Hollywood Plaza, East Orange, N. J. 6-12-13-24-25. ADV. PG. 106. (h)

General Automatic Corp., 12 Carlton Ave., Mountain View, N. J. 4-10-12-18-19-22-23. (h)

GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. 1. ADV. PG. 563. (h)

GENERAL CONTROLS CO., Glendale 1, Calif. 11-17. ADV. PG. 546. (h)

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 10-12-13-15-20-22-25. ADV. PG. 1-12. (h)

General Electric Co., Ltd., of England, (Imtra Corp.), 58 Charles St., Cambridge, Mass. 10-18-23. (h)

Globe Electrical Mfg. Co., 1729 W. 134th St., Gardena, Calif. 5-7-9-12-13-17-18-22-23-25. (h)

Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y. 23. (h)

Gordos Corp., 250 Glenwood Ave., Bloomfield, N. J. 11-25. (h)

Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill. 6-8-9-10-12-13-17-18-19-20-21-22-23-25. (h)

Hagen Mfg. Co., 202 20th St., Moline, Ill. 25. (h)

Haledy Electronics Co., 57 William St., New York 5, N. Y. 5-11-15-17. (h)

HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. 16-19-22-26. ADV. PG. 610. (h)

HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury, Conn. 20-25. ADV. PG. 531. (h)

HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. 25. ADV. PG. 157. (h)

Heinemann Electric Co., 150 Plum St., Trenton 2, N. J. 25. (h)

Hetherington, Inc., Sharon Hill, Pa. 10-17-25. (h)

HI-G, INC., Bradley Field, Windsor Locks, Conn. 17-18-19-22. ADV. PG. 418. (h)

HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau Ave., Brooklyn 22, N. Y. 9-10-12-17-19-22. ADV. PG. 653. (h)

Hufco Industries, 2815 West Olive, Burbank, Calif. 22-23. (h)

Hupp Electronics Co., A Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill. 15. (h)

Industrial Electronic Controls Co., 2271 E. 14th St., Brooklyn 29, N. Y. 5. (h)

Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn. 1. (h)

INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. 25. ADV. PG. 506. (h)

Iron Fireman Mfg. Co., Electronics Div., 2838 S. E. 9th Ave., Portland 2, Ore. 19. (h)

Jack & Heintz, Inc., Cleveland 1, Ohio. 20. (h)

Jaldinger Mfg. Co., Inc., The, 1921 W. Hubbard St., Chicago 22, Ill. 5-10-13-15-19-25. (h)

JAMES VIBRAPOWR CO., 4050 N. Rockwell St., Chicago 18, Ill. 1-6-19-27. ADV. PG. 542. (h)

JENNINGS RADIO MFG. CORP., 970 McLaughlin Ave., P. O. Box 1278, San Jose 8, Calif. 1-7-8-10-12-17-26. ADV. PG. 406, 407. (h)

Johnson Co., E. F., Waseca, Minn. 7. (h)

Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill. 2-6-8-21-23. (h)

King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio. 19-27. (h)

KURMAN ELECTRIC CO., INC., 191-193 Newel St., Brooklyn 22, N. Y. 1-2-7-8-9-10-12-13-15-16-17-19-22-23-25. ADV. PG. 669. (h)

Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y. 3. (h)

LEACH CORP., LEACH RELAY DIV., 5915 Avalon Blvd., Los Angeles 33, Calif. 4-5-6-7-8-9-10-12-13-15-16-17-18-19-20-22-23-24-25. ADV. PG. 52. (h)

Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif. 1. (h)

Leland, Inc., G. H., 123 Webster St., Dayton 2, Ohio. 18-21. (h)

Livingston Electronic Corp., Livingston, N. J. 25. (h)

Machinery Electrification, Inc., Northboro, Mass. 5-15-25. (h)

Mack Electric Devices, Inc., 43 Glenside Ave., Wyncote, Pa. 11-17-26. (h)

Magnadyne Co., 84 S. Water St., Port Chester, N. Y. 10-16-19-22-25. (h)

Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind. 1. (h)

Magnecraft Electric Co., 3352 W. Grand Ave., Chicago 51, Ill. 4-9-10-12-13-17-19-21-23-25. (h)

Magnetix Devices, Inc., 712 East St., Frederick, Md. 1-7-10-16-18-19. (h)

Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y. 5-6. (h)

Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H. 3. (h)

May Engineering Co., 6055 Lankershim Blvd., North Hollywood, Calif. 25. (h)

Mercury Contacts, Inc., P. O. Box 615-E, Far Hills Station, Dayton 9, Ohio. 11. (h)

Miller Research Laboratories, 5529 S. Fifth St., Milwaukee 7, Wis. 12-17. (h)

Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y. 19. (h)

Milwaukee Gas Specialty Co., 730 Jackson, Milwaukee 1, Wis. 19-22-24-25. (h)

Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S. Minneapolis 8, Minn. 5-11-25. (h)

Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa. 22. (h)

Muirhead & Co., Ltd., Beckenham, Kent, England. 4. (h)

Mullenbach Div. of Electric Machinery Mfg. Co., 2100 E. 27th St., Los Angeles 58, Calif. 19. (h)

Naylor Laboratories, Inc., E. V., 2 Yennicoek Ave., Port Washington, N. Y. 25. (h)

Nemeth, Inc., 2223 S. Carmelina Ave., Los Angeles 64, Calif. 8-18-21-25. (h)

North Electric Co., 553 S. Market St., Galion, Ohio. 2-5-8-9-10-12-13-16-18-20-21-22-23-25-27. (h)

OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. 18-21. ADV. PG. 302, 303. (h)

O K Electronics Corp., 7 Hunt Place, Nutley, N. J. 22-24-25. (h)

OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. 10-12-13-17-19-23-25. ADV. PG. 282, 283. (h)

Omega Electronics Co., 355 Atlantic Ave., Brooklyn 17, N. Y. 4-7-9-10-17-20-21-23. (h)

OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. 12-13. ADV. PG. 650. (h)

Pacific Relays, Inc., 12027 Vose St., North Hollywood, Calif. 17-19-22. (h)

Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash. 21-23-27. (h)

Pantek Co., Box 212, El Segundo, Calif. 5. (h)

Penta Laboratories, Inc., 312 N. Nopal St., Santa Barbara, Calif. 7-26. (h)

PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. 5-7. ADV. PG. 500. (h)

Phaoston Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena Calif. 10-17-19-22-23. (h)

Philadelphia Scientific Glass Co., Quakertown, Pa. 11-17-19-26. (h)

Phillips Control Corp., 59 W. Washington St., Joliet, Ill. 4-9-10-17-19-22-23-25. (h)

Photobell Co., Inc., 43 Vesey St., New York 7, N. Y. 15-25. (h)

PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. 5-15-20-21. ADV. PG. 486. (h)

POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. 1-7-13-19-23-24-25. ADV. PG. 476. (h)

Polytron Engineering Inc., P. O. Box 5024, Middle River, Md. 22. (h)

POTTER & BRUMFIELD, INC., Princeton, Ind. 5-6-7-8-10-12-13-15-17-19-21-22-23. ADV. PG. 529. (h)

PRECISE MEASUREMENTS CO., R. D. #21, Millbrook Rd., Flemington, N. J. 19. ADV. PG. 399. (h)

PRICE ELECTRIC CORP., Frederick, Md. 1-4-7-10-12-13-17-19-20-21-22-23-24-25. ADV. PG. 563. (h)

Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England. 14. (h)

Pyramid Instrument Corp., 630 Merrick Rd., Lynbrook, N. Y. 10. (h)

R. B. M. Div., Essex Wire Corp., Logansport, Ind. 2-4-5-8-9-12-16-17-19-23. (h)

Radar Relay, Inc., 2120 Pontius Ave., Los Angeles 25, Calif. 19-22. (h)

RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453. (h)

Third & Fourth Covers. (h)

RELAY SALES, INC., P. O. Box 186B, West Chicago, Ill. 1-4-7-8-9-10-11-12-16-17-18-19-20-21-22-23-25. ADV. PG. 473. (h)

Relays, Inc., 162 W. 83rd St., New York 24, N. Y. 9-19-23. (h)

Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif. 7-8-11-26. (h)

REVERSE CORP. OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. 27. ADV. PG. 516. (h)

Rhodes, Inc., M. H., 30 Bartholomew Ave., Hartford, Conn. 25. (h)

RIPLEY CO., INC., Middletown, Conn. 15. ADV. PG. 458. (h)

Roller Smith Corp., 1825 W. Market St., Bethlehem, Pa. 3-12-13. (h)

Servo-Tek Products Co., Inc., 1086 Goffie Rd., Hawthorne, N. J. 5. (h)

SIGMA INSTRUMENTS, INC., 180 Pearl St., South Braintree 85, Mass. 9-10-16-19. ADV. PG. 136, 137. (h)

Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill. 3. (h)

Standard Telephones & Cables, Ltd., Connaught House, 83 Aldwych, London, W. C. 2, England. 7-15-16-23-25-26. (h)

STEVENS-ARNOLD INC., 22 Elkins St., South Boston 27, Mass. 6-9-16-27. ADV. PG. 274. (h)

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y. 2-8-9-16-23-27. (h)

Struthers-Dunn, Inc., Lamb's Rd., Pitman, N. J. 1-4-7-8-9-10-11-12-13-16-17-18-19-20-21-22-23-24-25-26. (h)

Synchro Start Products, Inc., 8151 Ridgeway Ave., Skokie, Ill. 13. (h)

TECHNICAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. 14. ADV. PG. 545. (h)

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y. 7-25. (h)

Tempo Instrument Co., 5 Centre St., Hempstead, N. Y. 25. (h)

Terado Co., 1059 Raymond Ave., St. Paul 14, Minn. 19-22. (h)

Thermal-Devices Div. of Curtiss-Wright Corp., 631 Central Ave., Carlstadt, N. J. 4-12-13-19-24-25. (h)

Transco Products, Inc., 12210 Nebraska Ave., Los Angeles 25, Calif. 1. (h)

TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. 4-5-12-13-25. ADV. PG. 361. (h)

ULANET CO., GEORGE, 413 Market St., Newark 5, N. J. 25. ADV. PG. 547. (h)

UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. 1-14. ADV. PG. 428. (h)

U. S. Relay Co., 1740 Albion St., Los Angeles 31, Calif. 2-4-6-7-10-12-13-17-19-22-23-25. (h)

UNION SWITCH & SIGNAL DIV. OF WESTINGHOUSE AIR BRAKE CO., Pittsburgh 18, Pa. 8-16-18-19-22-23. ADV. PG. 384, 385. (h)

VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. 6-13. ADV. PG. 564.
Vemaline Products Co., P. O. Box 222, Hawthorne, N. J. 15-25.

Victory Engineering Corp., 101 Springfield Rd., Union, N. J. 19-22-24.
Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J. 6-26.

WARD LEONARD ELECTRIC CO., 31 South St., Mt. Vernon, N. Y. 9-10-12-13-17-19-25. ADV. PG. 408.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. 3-4-6-10-12-13-16-17-24-25. ADV. PG. 205-216.

Western Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J. 3-17-19-23-25.

WHEELLOCK SIGNALS, INC., 273 Branchport Ave., Long Branch, N. J. 1-4-7-9-10-12-13-16-17-19-22-25. ADV. PG. 599.

Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va. 5-25.
Worner Electronic Devices, Rankin, Ill. 15.

REMOTE CONTROL SYSTEMS See SYSTEMS—Remote Control

RESINS See PLASTIC MATERIALS

RESINS—Potting

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
Armstrong Products Co., P. O. Box 1-EB, Warsaw, Ind. Barrett Division, Allied Chemical & Dye Corp., 40 Recto St., New York 6, N. Y.

Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.

BIWAX CORP., 3445 Howard St., Skokie, Ill. ADV. PG. 337.

Dow Corning Corp., Midland, Mich.

Ellanar Chemical Co., 2308 Oakton St., Evanston, Ill.

Emerson & Cuming Inc., 869 Washington St., Canton, Mass.

Iscovante Products, Inc., P. O. Box 1681, Wilmington, Del.

Marquette Corp., 37-21 30th St., Long Island City 1, N. Y.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

Ohio-Apex Div., Food Machinery & Chemical Corp., Nitro, W. Va.

Plastronics, P. O. Box 96, Winter Hill 45, Mass.

Reichhold Chemicals, Inc., 525 North Broadway, White Plains, N. Y.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Terrell Corp., 19 Lane St., Waltham 54, Mass.

Thiokol Chemical Corp., 780 N. Clinton Ave., Trenton 7, N. J.

RESISTORS Fixed Composition 1. Low wattage 2. Temperature sensitive 3. High frequency 4. High megohm 5. High voltage 6. High wattage 7. Voltage sensitive 8. Resistor-suppressor Variable Composition 9. Controls 10. Controls, High Resistance 11. Controls, High Voltage Wire Wound 12. 2 Watts and under 13. 4 to 35 Watts 14. 4 to 225 Watts 15. 4 to 500 Watts 16. 500 to 1500 Watts 17. Precision low voltage 18. Precision high voltage 19. Rf non-inductive Variable Wire Wound 20. 4 Watts and under 21. 5 to 25 Watts 22. 25 Watts and over 23. 500 Watts and over 24. Slide wire 25. Adjustable 26. Rheostat—potentiometer types

ACE Electronics, 800 N. Pitt St., Alexandria, Va. 1.

ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. 12-20. ADV. PG. 487.

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. 12-17-24-26.

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. 1-4-9-10. ADV. PG. 194.

Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y. 26.

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. 26. ADV. PG. 691.

Arnold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y. 12-13-19.

Atlas Resistor Co., 1128 Madison St., Chester, Pa. 14-15-16-17-20-21-22-23-25.

Bond Electronics Corp., 60 Springfield Ave., Springfield, N. J. 12-13-17-18-19.

Bradford Components, Inc., Bradford, Pa. 12-13-14-15-17-19-20-24.

Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va. 12.

Carter Parts Co., 3401 Madison, Skokie, Ill. 20-21-26.

CENTRALAB DIV., GLOBE-UNION, INC., 914 E. Keefe Ave., Milwaukee 1, Wis. 9-10-11-20. ADV. PG. 419.

Chicago Telephone of California, Inc., 105 Pasadena Ave., South Pasadena, Calif. 9-10.

CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardsley Ave., Elkhart, Ind. 9-10-11-20-25-26. ADV. PG. 223.

CINEMA ENGINEERING DIV., AEROVOX CORP., 1100 Chestnut St., Burbank, Calif. 12. ADV. PG. 688.

CIRCUIT INSTRUMENTS, INC., 2801 Anvil St. North, P. O. Box 1438, St. Petersburg, Fla. 26. ADV. PG. 193.

Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio. 1-9.

Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio. 12-13-14-15-16-17-18-20-21-22-23-24-25-26.

CLAROSTAT MFG. CO., INC., Dover, N. H. 9-10-11-12-13-14-17-20-21-22-25-26. ADV. PG. 288, 289.

Coilcraft, Inc., Gary, Ill. 12-17-18-19.

Colman Tool & Machine Co., P. O. Box 7026, Amarillo, Texas. 14.

Consolidated Resistance Co. of America Inc., 44 Prospect St., Yonkers, N. Y. 12-17-18.

CONTINENTAL CARBON, INC., 13900 Lorain Ave., Cleveland 11, Ohio. 8-12-13-14-20-25-26. ADV. PG. 368.

Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif. 12-17-20-24-25.

DALE PRODUCTS, INC., Box 136, Columbus, Neb. 12-13-14-17-18-19. ADV. PG. 438, 439.

DAVEN CO., Route 10, Livingston, N. J. 12-17-19-20-26. ADV. PG. 245.

DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. 20-24-25. ADV. PG. 690.

Dmeter Mfg. Co., Inc., 22-24 Larkin Plaza, Yonkers, N. Y. 12-17-18-19.

DeWitt Development Co., 308 W. 127th St., Blue Island, Ill. 12-20.

EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. 12-17-18-19. ADV. PG. 451.

Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif. 12-26.

ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. 3. ADV. PG. 658, 659.

Electromath Corp., 190 Henry St., Stamford, Conn. 20-26.

Electro-Measurements, Inc., 7524 S. W. Macadam, Portland 1, Ore. 1-12-26.

ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. 17-18-26. ADV. PG. 584.

First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass. 12-17-18.

G-C ELECTRONICS MFG. CO., DIV. OF G-C TEXTRON, INC., 400 S. Wyman St., Rockford, Ill. 6. ADV. PG. 543.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 13-14-15-16-21-22-23-24-25. ADV. PG. 1-12.

GENERAL ELECTRIC CO., MAGNETIC MATERIALS SECTION, 7780 Neff Rd., Edmore, Mich. 2-7-8. ADV. PG. 16, 17.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. 12-17-19-20-21-22-25-26. ADV. PG. 316, 317.

GENERAL RESISTANCE PRODUCTS CORP., 577 E. 156th St., New York 55, N. Y. 12-17-18. ADV. PG. 612.

GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. 20-24-25-26. ADV. PG. 344.

GLOBAR DIVISION, CARBORUNDUM CO., Niagara Falls, N. Y. 1-2-3-4-5-6-7-8. ADV. PG. 217.

GRAY INSTRUMENT CO., 200 E. Church Lane, Philadelphia 44, Pa. 12-13-14. ADV. PG. 643.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif. 8.

Hansen Electronics, 7117 Santa Monica Blvd., Los Angeles 46, Calif. 3.

HARDWICK HINDLE, INC., 40 Hermon St., Newark 5, N. J. 13-14-15-21-22-23-25-26. ADV. PG. 70, 71.

Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif. 20-25-26.

HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. 12. ADV. PG. 188.

Instrument Resistors Co., 1036 Commerce Ave., Union, N. J. 12-13-17-18-19.

INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. 1-3-4-5-6-9-10-11-12-13-14-17-18-19-20. ADV. PG. 189-192.

Janco Corp., 3111 Winona Ave., Burbank, Calif. 7.

Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill. 12-13-17-18-19-20-21-24-25-26.

Julie Research Laboratories, 556 W. 168th St., New York 32, N. Y. 12-17.

K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. 12-17-18. ADV. PG. 510.

Keystone Carbon Co., Inc., St. Marys, Pa. 2.

Lectrohm, Inc., 5561 Northwest Highway, Chicago 30, Ill. 12-15-20-21-22-25.

Lesia, Via Bergamo 21, Milan, Italy. 9-10-20-21-22-26.

Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind. 12-17-30.

Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind. 1-3-6-20-21-25-26.

MEPCO, INC., 35-37 Abbott Ave., Morristown, N. J. 12-13-17-18-19. ADV. PG. 398.

Milwaukee Resistor Co., 700 W. Virginia St., Milwaukee 4, Wis. 15-16-19-21-22-23.

Model Engineering & Mfg., Inc., Huntington, Ind. 13-15-16-22-25-26.

Muirhead & Co., Ltd., Beckenham, Kent, England. 17.

Mullenbach Div. of Electric Machinery Mfg. Co., 2100 E. 27th St., Los Angeles 58, Calif. 16.

Muter Co., 1255 S. Michigan Ave., Chicago 5, Ill. 13-20-26.

Nagao Associates, Inc., Littleton, Mass. 17.

Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif. 12-13-20-21.

Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio. 1-3-5-8-12-13-14-25.

OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. 1-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26. ADV. PG. 282, 283.

ONONDAGA POTTERY WORKS, ELECTRONICS DIV., 1858 W. Lafayette St., Syracuse, N. Y. 1. ADV. PG. 252.

Pacific Resistor Co., 1881 Sepulveda Blvd., Los Angeles 25, Calif. 15-16-19-21-22-23-24-25.

PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. 12-13-14-15-16-17-18-19-20-21. ADV. PG. 601 (h).

Precision Electronic Components, Ltd., 50 Wingold Ave., Toronto, 10, Ontario, Canada. 9-10-11.

Precision Inc., 730 Lyndale Ave., Minneapolis, Minn. 14-17-24.

Precision Line, Inc., 63 Main St., Maynard, Mass. 20-24-25-26.

Precision Resistor Co., 109 U. S. Highway # 22, Hillside 5, N. J. 12-13-17-18.

R. C. L. Mfg. Co., New Jersey Ave., Riverside 1, N. J. 13-14-15-16-17-18-21-22-25.

Rattray & Co., Inc., George, 116-08 Myrtle Ave., Richmond Hill, N. Y. 12-17-20-26.

REON RESISTOR CORP., 117 Stanley Ave., Yonkers, N. Y. 9-10-12-17-18. ADV. PG. 492.

RESISTANCE PRODUCTS CO., 914 S. 13th St., Harrisburg, Pa. 3-4-5-6-12-17-18. ADV. PG. 169.

Resistors, Inc., 5226 W. 26th St., Chicago 50, Ill. 13-14-21-22-25.

REX RHEOSTAT CO., 3 Foxhurst Rd., Baldwin, N. Y. 16. ADV. PG. 590.

Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif. 12-17-19.

Rollan Electric Co., 8233 S. Princeton Ave., Chicago 20, Ill. 12-17.

Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa. 17.

Samaritus Electronic Corp., 123 Canal St., Shelton, Conn. 12-14-17-18-20-21-22-24-25-26.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. 17-18. ADV. PG. 618.

Servonic Instruments, Inc., 1143 S. Fair Oaks Ave., Pasadena 2, Calif. 12.

SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. 1-4-5-12-13-14-15-17-20-21-22. ADV. PG. 101.

Shallite, Inc., 128 W. First Ave., Roselle, N. J. 12-17-18.

Spectrol Div. of Carrier Corp., 1704 S. Del Mar, San Gabriel, Calif. 20-21-25.

Speer Resistor Division, Speer Carbon Co., St. Marys, Pa. 1.

Sprague Electric Co., 125 Marshall St., North Adams, Mass. 4-5-6-14-17-18-19.

Stackpole Carbon Co., St. Marys, Pa. 1-9.

Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England. 12-13-20-21.

TECHNOLOGY INSTRUMENT CORP., 533 Main St., Acton, Mass. 20-24. ADV. PG. 104, 105.

Tel-Labs, Inc., 1050 Second St., Manchester, N. H. 12-17-18.

Tepro Electric Corp., 421 Burke Bldg., 5 St. Paul St., Rochester 4, N. Y. 12-13-14-17.

Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif. 20-25-26.

TRU-OHM PRODUCTS DIV., MODEL ENGINEERING & MFG., INC., 2800 Milwaukee Ave., Chicago 18, Ill. 13-14-15-16-19-22-23-24-25-26. ADV. PG. 481.

United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y. 19.

VICTOREEN INSTRUMENT CO., COMPONENTS DIV., 5806 Hough Ave., Cleveland 3, Ohio. 1-4-5-6. ADV. PG. 366.

Victory Engineering Corp., 101 Springfield Rd., Union, N. J. 2-7.

WARD LEONARD ELECTRIC CO., 31 South St., Mt. Vernon, N. Y. 13-14-15-16-19-22-25-26. ADV. PG. 408.

WATERS MANUFACTURING INC., Boston Post Rd., Wayland, Mass. 20-26. ADV. PG. 258, 259.

WELWYN INTERNATIONAL, INC., 3355 Edgecliff Terrace, Cleveland 11, Ohio. 12-13-14-17-18-19-20-21-25-26. ADV. PG. 628.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. 12-13-17-18. ADV. PG. 205-216.

White Dental Mfg. Co., S.S. Industrial Div., 10 E. 40th St., New York 16, N. Y. 4.

Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa. 5.

Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J. 1-2-4-5-6-7-13.

RESISTORS—Carbon Film
AMERICAN LAVA CORP., Cherokee Blvd. & Mfgs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.

Arnold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.

Campbell Industries, Inc., Sub. of Clarostat Mfg. Co., Inc., 3806 St. Elmo Station, Chattanooga 9, Tenn.

CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.

CONTINENTAL CARBON, INC., 13900 Lorain Ave., Cleveland 11, Ohio. ADV. PG. 368.

DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
 DAVEN CO., Route 18, Livingston, N. J. ADV. PG. 245.
 Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
 ELECTRA MFG. CO., RESISTOR DIV., 4051 Broadway, Kansas City, Mo. ADV. PG. 338.
 INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.
 Key Resistor Corp., 321 W. Redondo Beach Blvd., Gardena, Calif.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
 MEPCO, INC., 35-37 Abnett Ave., Morristown, N. J. ADV. PG. 398.
 Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif.
 PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
 Phasotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Pyrofilm Resistor Co., Inc., 8 Whippany St., Morristown, N. J.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 VICTOREEN INSTRUMENT CO., COMPONENTS DIV., 5806 Hough Ave., Cleveland 3, Ohio. ADV. PG. 366.
 WELWYN INTERNATIONAL INC., 3355 Edgecliff Terrace, Cleveland 11, Ohio. ADV. PG. 628.
 Wilrite Products, Inc., 3835 W. 150th St., Cleveland 11, Ohio.

RESISTORS—Deposited Carbon

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Allie's Products Corp., P. O. Box 188, Kendall Branch, Miami, Fla.
 AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 Arnold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
 CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
 DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 ELECTRA MFG. CO., RESISTOR DIV., 4051 Broadway, Kansas City, Mo. ADV. PG. 338.
 ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
 G-C ELECTRONICS MFG. CO., DIV. OF G-C TEXTRON, INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
 INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.
 Key Resistor Corp., 321 W. Redondo Beach Blvd., Gardena, Calif.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
 MEPCO, INC., 35-37 Abnett Ave., Morristown, N. J. ADV. PG. 398.
 Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif.
 PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
 Phasotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Pyrofilm Resistor Co., Inc., 8 Whippany St., Morristown, N. J.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 VICTOREEN INSTRUMENT CO., COMPONENTS DIV., 5806 Hough Ave., Cleveland 3, Ohio. ADV. PG. 366.
 WELWYN INTERNATIONAL INC., 3355 Edgecliff Terrace, Cleveland 11, Ohio. ADV. PG. 628.
 Wilrite Products, Inc., 3835 W. 150th St., Cleveland 11, Ohio.

RESISTORS—Encapsulated

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
 Arnold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
 Bond Electronics Corp., 60 Springfield Ave., Springfield, N. J.
 CINEMA ENGINEERING DIV., AEROVOX CORP., 1100 Chestnut St., Burbank, Calif. ADV. PG. 688.
 CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
 Consolidated Resistance Co. of America, Inc., 44 Prospect St., Yonkers, N. Y.
 Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
 CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
 DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.

ELECTRA MFG. CO., RESISTOR DIV., 4051 Broadway, Kansas City, Mo. ADV. PG. 338.
 Electronic Service Corp., 2906 Birch St., Franklin Park, Ill.
 First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
 GENERAL RESISTANCE PRODUCTS CORP., 577 E. 156th St., New York 55, N. Y. ADV. PG. 612.
 HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 188.
 Instrument Resistors Co., 1036 Commerce Ave., Union, N. J.
 INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.
 K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. ADV. PG. 510.
 MEPCO, INC., 35-37 Abnett Ave., Morristown, N. J. ADV. PG. 398.
 OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
 PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
 Precision, Inc., 730 Lyndale Ave., N. Minneapolis, Minn.
 Precision Resistor Co., 109 U. S. Highway #22, Hillside 5, N. J.
 R.C.L. Mfg. Co., New Jersey Ave., Riverside 1, N. J.
 REON RESISTOR CORP., 117 Stanley Ave., Yonkers, N. Y. ADV. PG. 492.
 RESISTANCE PRODUCTS CO., 914 S. 13th St., Harrisburg, Pa. ADV. PG. 169.
 Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif.
 Rollan Electric Co., 8233 S. Princeton Ave., Chicago 201, Ill.
 SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
 Shallite, Inc., 128 W. First Ave., Roselle, N. J.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 VICTOREEN INSTRUMENT CO., COMPONENTS DIV., 5806 Hough Ave., Cleveland 3, Ohio. ADV. PG. 366.
 WELWYN INTERNATIONAL INC., 3355 Edgecliff Terrace, Cleveland 11, Ohio. ADV. PG. 628.
 Wilrite Products, Inc., 3835 W. 150th St., Cleveland 11, Ohio.

RESISTORS—Fuse

Bradford Components, Inc., Bradford, Pa.
 Cima Corp., 119 Braintree St., Allston 34, Mass.
 CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
 DALE PRODUCTS, INC., Box 136, Columbus, Nebr. ADV. PG. 438, 439.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
 G-C ELECTRONICS MFG. CO., DIV. OF G-C TEXTRON, INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
 INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.
 Lectrohm, Inc., 5561 Northwest Highway, Chicago 30, Ill.
 Milwaukee Resistor Co., 700 W. Virginia St., Milwaukee 4, Wis.
 Model Engineering & Mfg., Inc., Huntington, Ind.
 Muter Co., The, 1255 S. Michigan Ave., Chicago 5, Ill.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
 OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
 TRU-OHM PRODUCTS DIV., MODEL ENGINEERING & MFG. INC., 2800 Milwaukee Ave., Chicago 18, Ill. ADV. PG. 481.
 Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J.

RESISTORS—Miniature Variable

BOURNS LABORATORIES, INC., 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 444.
 CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardsley Ave., Elkhart, Ind. ADV. PG. 223.
 CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
 Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 DeWitt Development Co., 308 W. 127th St., Blue Island, Ill.
 EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
 Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
 ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. ADV. PG. 584.
 GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
 Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
 Lesa, Via Bergamo 21, Milan, Italy.
 OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
 PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
 Precision Line, Inc., 63 Main St., Maynard, Mass.

Rattray & Co., Inc., George, 116-08 Myrtle Ave., Richmond Hill, N. Y.
 REON RESISTOR CORP., 117 Stanley Ave., Yonkers, N. Y. ADV. PG. 492.
 Spectrol Div. of Carrier Corp., 1704 S. Del Mar, San Gabriel, Calif.
 Stackpole Carbon Co., St. Marys, Pa.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 TRU-OHM PRODUCTS DIV., MODEL ENGINEERING & MFG., INC., 2800 Milwaukee Ave., Chicago 18, Ill. ADV. PG. 481.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 WATERS MANUFACTURING INC., Boston Post Rd., Wayland, Mass. ADV. PG. 258, 259.

RESISTORS—Precision Film Type

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Allie's Products Corp., P. O. Box 188, Kendall Branch, Miami, Fla.
 Arnold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
 C B C Electronics Co., Inc., 2601 N. Howard St., Philadelphia 33, Pa.
 CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
 CONTINENTAL CARBON, INC., 13900 Lorain Ave., Cleveland 11, Ohio. ADV. PG. 368.
 CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
 DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 ELECTRA MFG. CO., RESISTOR DIV., 4051 Broadway, Kansas City, Mo. ADV. PG. 338.
 FILMOHM CORP., 48 W. 25th St., New York 10, N. Y. ADV. PG. 670.
 INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.
 Key Resistor Corp., 321 W. Redondo Beach Blvd., Gardena, Calif.
 MEPCO, INC., 35-37 Abnett Ave., Morristown, N. J. ADV. PG. 398.
 Metavac, Inc., 45-68 162nd St., Flushing 58, N. Y.
 PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
 POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 164, 165.
 Pyrofilm Resistor Co., 8 Whippany St., Morristown, N. J.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 WELWYN INTERNATIONAL INC., 3355 Edgecliff Terrace, Cleveland 11, Ohio. ADV. PG. 628.
 Wilrite Products, Inc., 3835 W. 150th St., Cleveland 11, Ohio. (h)

RESISTORS—Printed Strip

California Bent Glass Corp., Torrance, Calif.
 CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
 ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
 FILMOHM CORP., 48 W. 25th St., New York 10, N. Y. ADV. PG. 670.
 Hansen Electronics, 7117 Santa Monica Blvd., Los Angeles 46, Calif.
 INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.
 ONONDAGA POTTERY WORKS, ELECTRONICS DIV., 1858 W. Lafayette St., Syracuse, N. Y. ADV. PG. 252.

RESISTORS—Silicone

DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
 Lectrohm, Inc., 5561 Northwest Highway, Chicago 30, Ill.
 Milwaukee Resistor Co., 700 W. Virginia St., Milwaukee 4, Wis.
 OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
 Pacific Resistor Co., 1881 Sepulveda Blvd., Los Angeles 25, Calif.
 PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
 Precision Resistor Co., 109 U. S. Highway #22, Hillside 5, N. J.
 R. C. L. Mfg. Co., New Jersey Ave., Riverside 1, N. J.
 SAGE ELECTRONICS CORP., 302 N. Goodman St., Rochester, N. Y. ADV. PG. 222.
 TRU-OHM PRODUCTS DIV., MODEL ENGINEERING & MFG., INC., 2800 Milwaukee Ave., Chicago 18, Ill. ADV. PG. 481.
 Wilrite Products, Inc., 3835 W. 150th St., Cleveland 11, Ohio.

RESISTORS—Sub-Miniature

Arnold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
 Bond Electronics Corp., 60 Springfield Ave., Springfield, N. J.

CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardsley Ave., Elkhart, Ind. ADV. PG. 223.
Clark Electronic Labs., Box 165, Palm Springs, Calif.
Consolidated Resistance Co. of America Inc., 44 Prospect St., Yonkers, N. Y.
Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.

DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 438, 439.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
DeWitt Development Co., 308 W. 127th St., Blue Island, Ill.

Dmetri Mfg. Co., Inc., 22-24 Larkin Plaza, Yonkers 2, N. Y.
EASTERN PRECISION RESISTOR CORP., 675 Barby St., Brooklyn, N. Y. ADV. PG. 451.
ELECTRA MFG. CO., RESISTOR DIV., 4051 Broadway, Kansas City, Mo. ADV. PG. 338.
GENERAL RESISTANCE PRODUCTS CORP., 577 E. 156th St., New York 55, N. Y. ADV. PG. 612.

Hansen Electronics, 7117 Santa Monica Blvd., Los Angeles 46, Calif.
Instrument Resistors Co., 1036 Commerce Ave., Union, N. J.
INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.

Key Resistor Corp., 321 W. Redondo Beach Blvd., Gardena, Calif.
Liberty Industries, 107-37 71st Ave., Forest Hills, N. Y.
Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill.

OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.

Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
Precision Resistor Co., 109 U. S. Highway #22, Hillside, N. J.
R. C. L. Mfg. Co., New Jersey Ave., Riverside 1, N. Y.

REON RESISTOR CORP., 117 Stanley Ave., Yonkers, N. Y. ADV. PG. 492.
RESISTANCE PRODUCTS CO., 914 S. 13th St., Harrisburg, Pa. ADV. PG. 169.
Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif.

Rollan Electric Co., 8233 S. Princeton Ave., Chicago 20, Ill.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
Shallite, Inc., 128 W. First Ave., Roselle, N. J.

Sprague Electric Co., 125 Marshall St., North Adams, Mass.
Telewave Laboratories, Inc., 43-20 34th St., Long Island City, N. Y.
Tel-Labs, Inc., 1050 Second St., Manchester, N. H.

Tepro Electric Corp., 421 Burke Bldg., 5 St. Paul St., Rochester 4, N. Y.
Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
WELWYN INTERNATIONAL, INC., 3355 Edgely Terrace, Cleveland 11, Ohio. ADV. PG. 628.

Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J.

RESISTORS-Tape
ACF Electronics, 800 N. Pitt St., Alexandria, Va.
Hansen Electronics, 7117 Santa Monica Blvd., Los Angeles 46, Calif.
SANDERS ASSOCIATES, INC., Nashua, N. H. ADV. PG. 534.

RESISTORS-Wire Woven
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
Bradford Components, Inc., Bradford, Pa.
L. A. Resistor Co., Inc., 14742 Armita St., Van Nuys, Calif.

OHMWEVE CO., 43 Darcy St., West Hartford 6, Conn. ADV. PG. 204.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.

Rollan Electric Co., 8233 S. Princeton Ave., Chicago 20, Ill.
States Co., 19 New Park Ave., Hartford 6, Conn.

RESOLVERS
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
DETROIT CONTROLS CORP., CONTROL ENGINEERING UNIT, 560 Providence Highway, Norwood, Mass. ADV. PG. 515.

Diehl Mfg. Co., Somerville, N. J.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 333-336.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.

Ford Instrument Co., Div. of Sperry Rand Corp., 31-10 Thomson Ave., Long Island City 1, N. Y.
Helipot Corp., Newport Beach, Calif.
INDUCTION MOTORS CORP., 570 Main St., Westbury, N. Y. ADV. PG. 266.

KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
Kollsman Instrument Corp., Sub. of Standard Coil Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y.
Mid-Century Instrumental Corp., 611 Broadway, New York 12, N. Y.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Muirhead & Co., Ltd., Beckenham, Kent, England.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
PSP ENGINEERING CO., 8608 Otis St., South Gate, Calif. ADV. PG. 621.

REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

RESOLVERS-Coordinate Transform
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Diehl Mfg. Co., Somerville, N. J.
ECLIPSE PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 333-336.

KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
Mid-Century Instrumental Corp., 611 Broadway, New York 12, N. Y.

Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
Servonics, Inc., 822 N. Henry St., Alexandria, Va.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.

Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

RESOLVERS-Sine-Cosine
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Diehl Mfg. Co., Somerville, N. J.
ECLIPSE PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 333-336.

Electronic Associates, Inc., Long Branch, N. J.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
Mid-Century Instrumental Corp., 611 Broadway, New York 12, N. Y.

Muirhead & Co., Ltd., Beckenham, Kent, England.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
Servonics, Inc., 822 N. Henry St., Alexandria, Va.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.

Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.

RHEOSTATS
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
BOURNS LABORATORIES, INC., 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 444.
CENTRALAB DIV., GLOBE-UNION INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.

CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardsley Ave., Elkhart, Ind. ADV. PG. 223.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.

Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
HARDWICK HINDLE INC., 40 Hermon St., Newark 5, N. J. ADV. PG. 70, 71.
Helipot Corp., Newport Beach, Calif.
Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.

Les, Via Bergamo 21, Milan, Italy.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.

National Electric Controller Co., 7070 Glenwood Ave., Chicago 26, Ill.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
Tech Laboratories, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.
Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.

United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
WARD LEONARD ELECTRIC CO., 31 South St., Mt. Vernon, N. Y. ADV. PG. 408.

RHEOSTATS-Electronic
Carter Parts Co., 3401 Madison, Skokie, Ill.
Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

HARDWICK HINDLE INC., 40 Hermon St., Newark 5, N. J. ADV. PG. 70, 71.
Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.

Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
Samarius Electronic Corp., 123 Canal St., Shelton, Conn.

RHEOSTATS-Slide Wire
Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
HARDWICK HINDLE INC., 40 Hermon St., Newark 5, N. J. ADV. PG. 70, 71.

Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
National Electric Controller Co., 7070 Glenwood Ave., Chicago 26, Ill.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.

REX RHEOSTAT CO., 3 Foxhurst Rd., Baldwin, N. Y. ADV. PG. 590.
Samarius Electronic Corp., 123 Canal St., Shelton, Conn.
STICHT CO., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.

Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

RINGS-Carbon Packing
GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
St. Marys Carbon Co., State Rd., St. Marys, Pa.

RINGS-Collector
Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 615.

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.

COLLECTOR CORP., 304 E. 45th St., New York 17, N. Y. ADV. PG. 557.
ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 539.
ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 149.

Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GENERAL FINDINGS & SUPPLY CO., INDUSTRIAL DIV., Attleboro, Mass. ADV. PG. 327.
GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.

MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 558.

Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.

RINGS-Oil Sealing
Auburn Mfg. Co., The Pease Ave. & Stack St., Middletown, Conn.
Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.

Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Garlock Packing Co., The Palmyra, N. Y.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.

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GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
Johns-Manville, 22 E. 40th St., New York 16, N. Y.
Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 34, Pa.
St. Marys Carbon Co., State Rd., St. Marys, Pa.
UNITED AIRCRAFT PRODUCTS, INC., 1116 Bolander Ave., Dayton 1, Ohio. ADV. PG. 148.
Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.

RINGS—Retaining

BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 311.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 311.
Carroll Pressed Metal Co., 133 Dewey St., Worcester, Mass.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
GIBSON CO., WILLIAM D., THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 311.
GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
Industrial Retaining Ring Co., 57 Cordier St., Irvington 11, N. J.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 311.
National Lock Washer Co., 40 Hermon St., Newark 5, N. J.
Newcomb Spring Corp., The, 177 E. Hawthorne Ave., Valley Stream, N. Y.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 311.
Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 34, Pa.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 311.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 311.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Taylor Fibre Co., Norristown, Pa.
Waldes Kohinor, Inc., 47-16 Austel Place, Long Island City 1, N. Y.

RIVETS

Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
Anti-Corrosive Products Co., Castleton-on-Hudson, N. Y.
Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Chicago Rivet & Machine Co., Bellwood, Ill.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
Derringer Metallurgical Corp., 8127 Monticello Ave., Skokie, Ill.
Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
Goodrich Aviation Products, B. F., Div. of B. F. Goodrich Co., Akron, Ohio.
GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
Hassall, Inc., John, P. O. Box 2242, Westbury, N. Y.
Huck Mfg. Co., 2480 Belleville Ave., Detroit 7, Mich.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 683.
Progressive Mfg. Co., 50 Norwood St., Torrington, Conn.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
SOUTHCOTE DIVISION, SOUTH CHESTER CORP., 233 Industrial Highway, Lester, Pa. ADV. PG. 254.
Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brooklyn 5, N. Y.
Tubular Rivet & Stud Co., Weston Ave., Wollaston, Quincy 70, Mass.
WILSON CO., H. A., THE, 2655 U. S. Hwy. 22, Union, N. J. ADV. PG. 257.

ROCHELLE SALTS

See CRYSTALS

RODS—Tungsten

Associated Engineering & Mfg. Co., Glen Ridge, N. J.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Murex, Ltd., Rainham, Essex, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
WILSON CO., H. A., THE, 2655 U. S. Hwy. 22, Union, N. J. ADV. PG. 257.

ROOMS—Screen

Ace Engineering & Machine Co., Inc., 3644 N. Lawrence St., Philadelphia 40, Pa.

Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
Lindgren & Associates, Erik A., 4515 N. Ravenswood Ave., Chicago 40, Ill.

ROTOR CASTINGS

Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.

RUBBER—Conductive

Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
CONNECTICUT HARD RUBBER CO., 407 East St., New Haven 9, Conn. ADV. PG. 646.
Neosil Products Div. of Rubber Associates, Inc., 745 Fifth Ave., New York 22, N. Y.
PACIFIC MOULDED PRODUCTS, 905 E. 59th St., Los Angeles, Calif. ADV. PG. 462.
Silicones Div., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
U. S. RUBBER CO., 1230 Avenue of the Americas, New York 20, N. Y. ADV. PG. 119.

RUBBER—Hard

Luzerne Rubber Co., Muirhead Ave., Trenton, N. J.

RUBBER—Natural

Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
Faber Pencil Co., Eberhard Rubber Div., 47 Colden St., Newark, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Hardman Co., Inc., H. V., 571 Cortlandt St., Belleville, N. J.
Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
Neosil Products Div. of Rubber Associates, Inc., 745 Fifth Ave., New York 22, N. Y.
PACIFIC MOULDED PRODUCTS, 905 E. 59th St., Los Angeles, Calif. ADV. PG. 462.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.

RUBBER—Synthetic

Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
CONNECTICUT HARD RUBBER CO., 407 East St., New Haven 9, Conn. ADV. PG. 646.
du Pont de Nemours & Co., Inc., E. 1, Wilmington 98, Del.
Faber Pencil Co., Eberhard Rubber Div., 47 Colden St., Newark, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
General Electric Co., Silicone Products Dept., Waterford, N. Y.
Goodrich Chemical Co., B. F., 3135 Euclid Ave., Cleveland 15, Ohio.
Goodyear Tire & Rubber Co., The, Chemical Div., 1144 E. Market St., Akron 16, Ohio.
Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
MAIGNE CO., O. J., 321 Pearl St., New York 38, N. Y. ADV. PG. 679.
Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
Neosil Products Div. of Rubber Associates, Inc., 745 Fifth Ave., New York 22, N. Y.
PACIFIC MOULDED PRODUCTS, 905 E. 59th St., Los Angeles, Calif. ADV. PG. 462.
Rogers Corp., Goodyear, Conn.
Silicones Div., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Western Felt Works, 4029 Ogden Ave., Chicago, Ill.

SCALERS

See COUNTERS

SCALES—Oscilloscope

DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
Photo Chemical Products, Inc., 999A Stewart Ave., Garden City, N. Y.

SCANNERS—Reflected & Transmitted Light

Acme Teletronix Div., NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
Combustion Control Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
General Electric Co., Technical Products, Dept., Electronics Park, Syracuse, N. Y.

Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
L. & O. Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
Spinco Div. of Beckman Instruments, Inc., Stanford Industrial Park, Palo Alto, Calif.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

SCRAMBLERS—Speech

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

SCREENS—Television Projection

Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.

SCREWS—Self-Tapping

Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. J.
Alvo Nut & Bolt Co., Inc., 1601 Grande Vista Ave., Los Angeles 23, Calif.
American Screw Co., Willimantic, Conn.
Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
Atlas Screw & Specialty Co., 450 Broome St., New York 13, N. Y.
Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.
Camcar Screw & Mfg. Co., Div. of Textron Inc., 600 18th Ave., Rockford, Ill.
Central Screw Co., 3501 Shields Ave., Chicago 9, Ill.
Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S.E., Massillon, Ohio.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
Irwin Products, 6312 N. Artesian Ave., Chicago 45, Ill.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 683.
Lamson & Sessions Co., 1971 W. 85th St., Cleveland 2, Ohio.
National Screw & Mfg. Co., The, Cleveland 4, Ohio.
Parker-Kalen Div. of General American Transportation Corp., Clifton, N. J.
Pheoli Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.
Pilgrim Screw Corp., 259 Dexter St., Providence, R. I.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Set Screw Mfg. Co., 470 Main St., Bartlett, Ill.
Shakeproof Div. of Illinois Tool Works, St. Charles Rd., Elgin, Ill.
Southern Screw Co., P. O. Box 1360-EG, Statesville, N. C.
Star Stainless Screw Co., 655 Union Blvd., Totowa, N. J.
Thompson-Bremer & Co., 520 N. Dearborn, Chicago 10, Ill.
Torrington Co., 59 Field St., Torrington, Conn.
United Screw & Bolt Corp., 2513 W. Culbertson St., Chicago 8, Ill.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

SCREWS—Set

Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
Allen Mfg. Co., Hartford 2, Conn.
Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
Alvo Nut & Bolt Co., Inc., 1601 Grande Vista Ave., Los Angeles 23, Calif.
Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
Atlas Screw & Specialty Co., 450 Broome St., New York 13, N. Y.
Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Chicago Screw Co., The, Bellwood, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
Greer Stop Nut Co., 2620 W. Flournoy St., Chicago 12, Ill.
Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 683.
Lamson & Sessions Co., 1971 W. 85th St., Cleveland 2, Ohio.
National Screw & Mfg. Co., The, Cleveland 4, Ohio.
Parker-Kalen Div. of General American Transportation Corp., Clifton, N. J.
Pheoli Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.

Remler Company, 2101 Bryant St., San Francisco 10, Calif.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 Set Screw Mfg. Co., 470 Main St., Bartlett, Ill.
 Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.
 Star Stainless Screw Co., 655 Union Blvd., Totowa, N. J.
 United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Walco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
 Waltham Screw Co., Waltham, Mass.
 Waltham Watch Co., Instrument & Industrial Products, Waltham, 54, Mass.
 Weckesser Co., 5701 Northwest Highway, Chicago 50, Ill.

SEALING SERVICE—Hermetic

Autel Electronics Co., P. O. Box 225, Linden, N. J.
ELECTRO-SEAL CORP., 946 North Ave., Des Plaines, Ill.
 ADV. PG. 540.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
 Glassteel Products Co., Inc., 1111 E. Elizabeth Ave., Linden, N. J.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 3, Calif.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 670.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago, 47, Ill.
 Telectro Industries Corp., 35-16 37th St., Long Island City, N. Y.
 Warren Plastics Corp., Warren, Pa.

SEALS—Carbon

Garlock Packing Co., The, Palmyra, N. Y.
GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
 Helwig Co., 2544 N. 30th St., Milwaukee 10, Wis.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
 St. Marys Carbon Co., State Rd., St. Marys, Pa.
 Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.

SEALS—Ceramic to Metal

Ceramaseal, Inc., Box 25, New Lebanon Center, N. Y.
 Glassteel Products Co., Inc., 1111 E. Elizabeth Ave., Linden, N. J.
 McCormick Selp Associates, Hollister, Calif.
 Thermo Materials, Inc., 4040 Campbell Ave., Menlo Park, Calif.

SEALS—Hermetic

Advanced Vacuum Products, Inc., Div. of General Ceramics Corp., 122 Liberty St., Stamford, Conn.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfgs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 Autel Electronics Co., P. O. Box 225, Linden, N. J.
AUTOMATIC & PRECISION MFG. CO., 252 Hawthorne Ave., Yonkers 5, N. Y. ADV. PG. 586.
 Ceramaseal Co., The, Box 25, New Lebanon Center, N. Y.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
CONSTANTIN & CO., L. L., Route #46, Lodi, N. J. ADV. PG. 377.
 Diamond Products Mfg. Co., Div. of U. S. Ceramic Tile Co., 1232 Cleveland Ave., W. W. Canton, Ohio.
ELECTRICAL INDUSTRIES DIV., PHILIPS ELECTRONICS, INC., 691 Central Ave., Murray Hill, N. J. ADV. PG. 315.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Farnsworth Electronic Co., Pacific Div., 815 S. San Antonio Rd., Palo Alto, Calif.
 Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
 Glassteel Products Co., Inc., 1111 E. Elizabeth Ave., Linden, N. J.
 Helder Mfg. Corp., 238 Lewis St., Paterson, N. J.
 Hermaseal Co., Inc., 1101 Lafayette St., Elkhart, Ind.
HERMETIC SEAL CORP., 29-37 S. Sixth St., Newark 7, N. J. ADV. PG. 325.
 Hermetite Corp., 702 Beacon St., Boston 15, Mass.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., COMPONENTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
 Mitronics, Inc., 1290 Central Ave., Hillside, N. J.
 Neosil Products Div. of Rubber Associates, Inc., 745 Fifth Ave., New York 22, N. Y.
 Phillips Control Corp., 59 W. Washington St., Joliet, Ill.
 Quality Products Co., 387 Charles St., Providence 4, R. I.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 670.

Sealtron Corp., Reading Rd. at Amity, Cincinnati 15, Ohio.
 Soldering Specialties Co., 18 Chatham Rd., Summit, N. J.
SPHERE CO., INC., THE, 25 Amity St., Little Falls, N. J. ADV. PG. 652.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 108, 109.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 U. S. Stoneware Co., Akron 9, Ohio.
 Vitrosteel Corp., The, 709 E. 106th St., Box 6048, Indianapolis 20, Ind.
 Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.
 Warren Plastics Corp., Warren, Pa.
ZELL PRODUCTS CORP., 276-280 Main St., Norwalk, Conn. ADV. PG. 622, 623.

SEALS—Metal-to-Glass

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
 Autel Electronics Co., P. O. Box 225, Linden, N. J.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
DOLINKO & WILKENS, INC., 1901-7 Summit Ave., Union City, N. J. ADV. PG. 508.
ELECTRICAL INDUSTRIES DIV., PHILIPS ELECTRONICS, INC., 691 Central Ave., Murray Hill, N. J. ADV. PG. 315.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.
 Electronic Products Co., 111 E. 3rd St., Mt. Vernon, N. Y.
 Farnsworth Electronic Co., Pacific Div., 815 S. San Antonio Rd., Palo Alto, Calif.
 Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
 Glassteel Products Co., Inc., 1111 E. Elizabeth Ave., Linden, N. J.
 Glass-Solder Engineering, 300 N. Lake Ave., Pasadena 4, Calif.
 Hermaseal Co., Inc., 1101 Lafayette St., Elkhart, Ind.
 Hermetite, Inc., 232 Creek Rd., Keansburg, N. J.
HERMETIC SEAL CORP., 29-37 S. Sixth St., Newark 7, N. J. ADV. PG. 325.
 Hermetite Corp., 702 Beacon St., Boston 15, Mass.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., COMPONENTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Phillips Control Corp., 59 W. Washington St., Joliet, Ill.
 Quality Hermetics, Ltd., 45 Hollinger Rd., East York, Toronto, Ontario.
 Quality Products Co., 387 Charles St., Providence 4, R. I.
 Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 670.
 Sealtron Corp., Reading Rd. at Amity, Cincinnati 15, Ohio.
 Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 108, 109.
 U. S. Stoneware Co., Akron 9, Ohio.
VACAP CORP., 1905 Summit Ave., Union City, N. J. ADV. PG. 664.
 Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
 Vitrosteel Corp., The, 709 E. 106th St., Box 6048, Indianapolis 20, Ind.
 Warren Plastics Corp., Warren, Pa.
ZELL PRODUCTS CORP., 276-280 Main St., Norwalk, Conn. ADV. PG. 622, 623.

SEALS—Oil

American Felt Co., Glenville, Conn.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
 Automatic & Precision Mfg. Co., 252 Hawthorne Ave., Yonkers 5, N. Y.
 Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
 Boston Felt Co., 210 South St., Boston 11, Mass.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
 Garlock Packing Co., The, Palmyra, N. Y.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.

GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Mechanical Felt & Textiles Co., 50 W. 18th St., Weehawken, N. J.
 Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
 Rogers Corp., Goodyear, Conn.
 St. Marys Carbon Co., State Rd., St. Marys, Pa.
 Sealol Corp., Warwick Industrial Park, Providence 5, R. I.
 Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.

SEALS—Switch

Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
 Automatic & Precision Mfg. Co., 252 Hawthorne Ave., Yonkers 5, N. Y.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 503.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mt. Vernon, N. Y. ADV. PG. 685.
 Mechanical Felt & Textiles Co., 50 W. 18th St., Weehawken, N. J.
 Murray Mfg. Corp., 1250 Atlantic Ave., Brooklyn 16, N. Y.
 Neosil Products Div. of Rubber Associates, Inc., 745 Fifth Ave., New York 22, N. Y.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 555.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

SELECTIVE CALLING APPARATUS

Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Collins Radio Co., Cedar Rapids, Iowa.
 Electrical Communications Co., 765 Clementina St., San Francisco, Calif.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
HAMMARLUND MFG. CO., 460 W. 34th St., New York 1, N. Y. ADV. PG. 265.
 Hupp Electronics Co., A Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.
 Mobil Electronics Mfg. Co., 1111 State Rd. 67 E., Anderson, Ind.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
WHELOCK SIGNALS, INC., 273 Branchport Ave., Long Indianapolis 5, Ind. ADV. PG. 533.

SERVICE BULLETINS & COMPONENT REPLACEMENT—AM-FM TV

SAMS & CO., INC., HOWARD W., 2201 E. 46th St., Indianapolis 5, Ind. ADV. PG. 399.

SERVICES

See

Encapsulation
 Engraving & Profiling
 Frequency Calibration
 Computing
 Heat Treating
 Laboratories—Testing
 Packaging—Electronic
 Equipment
 Plating—Metal on
 Plastic
 Plating—Precious
 Metal

Sealing—Hermetic
 Service Bulletins &
 Component Replacement—AM-FM TV
 Silk Screen Processing
 Subminiaturization
 Technical Writing
 Tinning—Hot Dipped
 Tower Service
 Treating—Fungus &
 Moisture Proof
 Wire Marking

SHAFTS—Flexible

BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
KUPFFRIAN MFG. CO., 398 State St., Binghamton, N. Y. ADV. PG. 684.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
STEWART CORP., F. W., 4311 Ravenswood Ave., Chicago 13, Ill. ADV. PG. 653.
 Stow Mfg. Co., 101 Shear St., Binghamton, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 White Dental Mfg. Co., S. S., Industrial Div., 10 E. 40th St., New York 16, N. Y.

SHAPERS—Television Signal

Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

SHEETS—Molybdenum

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.

SHIELDING—Electrostatic

Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
 Auburn Mfg. Co., The Pease Ave. & Stack St., Middleton, Conn.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.
 Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.
METAL TEXTILE CORP., 647 E. First Ave., Roselle, N. J. ADV. PG. 450.
 Micro-Circuits Co., New Buffalo, Mich.
PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.
 Schuyler Mfg. Corp., 84 Porete Ave., North Arlington, N. J.
SHIELDING, INC., DEPT. LB, Riverton, N. J. ADV. PG. 421.
 Thomas & Sons, Inc., William, Slocum Ave., Ridgefield, N. J.
 Topatron, Inc., 942 E. Ojai Ave., Ojai, Calif.

SHIELDING—Radio Ignition

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
 Auburn Mfg. Co., The Pease Ave. & Stack St., Middleton, Conn.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Breeze Corps, Inc., 700 Liberty Ave., Union, N. J.
 Co-Operative Industries, Inc., 100 Oakdale Rd., Chester, N. J.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
 Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
METAL TEXTILE CORP., 647 E. First Ave., Roselle, N. J. ADV. PG. 450.
 Micro-Circuits Co., New Buffalo, Mich.
PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.
 Schuyler Mfg. Corp., 84 Porete Ave., North Arlington, N. J.
 Vacuum Equipment Div. of the New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.

SHIELDING—Sheet or Screen

Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.
SHIELDING, INC., Dept. LB, Riverton, N. J. ADV. PG. 421.
 Topatron, Inc., 942 E. Ojai Ave., Ojai, Calif.
U. S. RUBBER CO., 1230 Avenue of the Americas, New York 20, N. Y. ADV. PG. 119.

SHIELDING—Wire

ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
 Alpha Wire Corp., 200 Varick St., New York 14, N. Y.
 American Brass Co., 414 Meadow St., Waterbury 20, Conn.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
 Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
 Muter Co., The, 1255 S. Michigan Ave., Chicago 5, Ill.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 72.
 Sparta Mfg. Co., Div. of U. S. Ceramic Tile Co., Dover, Ohio.

SHIELDS—Cathode Ray Tube

DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 538.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
MAGNETICS, INC., P.O. Box 391, Butler, Pa. ADV. PG. 161-163.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.
 Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.

SHIELDS—Coil

Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
 Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
 Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Paul & Beekman, Inc., 1801 Cortland St., Philadelphia 40, Pa.
PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.
 Silicone Insulation, Inc., 1385 Seabury Ave., Bronx 61, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
 Worcester Pressed Aluminum Corp., 13-15 Hope Ave., Worcester, Mass.

SHIELDS—Ferrite

Crowley Div. of Aerovox Corp., 1 Central Ave., West Orange, N. J.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
 Yale & Towne Mfg. Co., Powered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.

SHIELDS—Lead

Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
 Chicago Expansion Bolt Co., 1338 W. Concord Place, Chicago 22, Ill.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
 Holub Industries, Inc., 414 DeKalb Ave., Sycamore, Ill.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 683.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

SHIELDS—Transformer

ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 554.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
 Kling Metal Spinning Co., 247 Centre St., New York, N. Y.
MAGNETIC METALS CO., Hayes Ave. at 21st St., Camden, N. J. ADV. PG. 544.
MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 161-163.
 Paul & Beekman, Inc., 1801 Cortland St., Philadelphia 40, Pa.
PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.
 Silicone Insulation, Inc., 1385 Seabury Ave., Bronx 61, N. Y.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 Worcester Pressed Aluminum Corp., 13-15 Hope Ave., Worcester, Mass.

SHIELDS—Tube

Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
ATLAS E-E CORP., 47 Prospect St., Woburn, Mass. ADV. PG. 562.
BIRTCHE CORP., 4371 Valley Blvd., Los Angeles 32, Calif. ADV. PG. 636.
 Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
 Collins Radio Co., Cedar Rapids, Iowa.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
 Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa.
ELCO CORP., "M" St. below Erie Ave., Philadelphia 24, Pa. ADV. PG. 284.
 Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
 Formatic Co., 178 Bridge St., Naugatuck, Conn.
 Goat Co., Inc., Fred, 308 Dean St., Brooklyn 7, N. Y.

INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
INTERNATIONAL ELECTRONIC RESEARCH CORP., 145 W. Magnolia Blvd., Burbank, Calif. ADV. PG. 576.
 Kling Metal Spinning Co., 247 Centre St., New York, N. Y.

Livingston Electronic Corp., Livingston, N. J.
MAGNETIC METALS CO., Hayes Ave. at 21st St., Camden, N. J. ADV. PG. 544.
MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 161-163.
METHODE MFG. CORP., 2021 W. Churchill St., Chicago 47, Ill. ADV. PG. 204.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
 Nems-Clarke, Inc., Silver Spring, Md.
 Paul & Beekman, Inc., 1801 Cortland St., Philadelphia 40, Pa.
PERFECTION MICA CO., 1320 N. Elston Ave., Chicago 22, Ill. ADV. PG. 428.
 Rollan Electric Co., 8233 S. Princeton Ave., Chicago 201, Ill.
 Roman Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
 Schuyler Mfg. Corp., 84 Porete Ave., North Arlington, N. J.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Teiner Engineering Corp., 116 Madison St., Malden, Mass.
 Thomas & Sons, Inc., William, Slocum Ave., Ridgefield, N. J.
 Waldom Electronics Inc., 4625 W. 53rd St., Chicago 32, Ill.

SHIFTERS—Color Phase
 See PARTS for COLOR TV TUBES

SHIFTERS—Phase, Microwave
 See MICROWAVE ACCESSORIES

SHIPPING CONTAINERS
 See PACKAGING MATERIALS

SHOCK MOUNTS
 See MOUNTINGS—Vibration and Shock

SHUNTS—Meter

Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
 Dubrow Development Co., 2358 Penn St., Burlington, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GRAY INSTRUMENT CO., 200 E. Church Lane, Philadelphia 44, Pa. ADV. PG. 643.
HOYT ELECTRICAL INSTRUMENT WORKS, 42 Carleton St., Cambridge 42, Mass. ADV. PG. 587.
 Janco Corp., 3111 Winona Ave., Burbank, Calif.
 Phaoston Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Precision Resistor Co., 109 U. S. Hwy, #22, Hillside 5, N. J.
 Roller-Smith Corp., 1825 W. Market St., Bethlehem, Pa.
 Sangam Electric Co., 1201 N. 11th St., Springfield, Ill.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
 Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

SILICON
 See METALS

SILICONE—Compounds
 See INSULATING COMPOUNDS

SILICONE CRYSTALS
 See CRYSTALS

SILICONE GREASES

Dow Corning Corp., Midland, Mich.
 Ed-Berl Products, Inc., 87 Merrick Rd., Baldwin, N. Y.
 General Electric Co., Silicone Products Dept., Waterford, N. Y.
 Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

SILICONE OILS

Dow Corning Corp., Midland, Mich.
 Ed-Berl Products, Inc., 87 Merrick Rd., Baldwin, N. Y.
 General Electric Co., Silicone Products Dept., Waterford, N. Y.

Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

SILICONE RUBBER INSULATION PARTS

See INSULATION PARTS

SILICONE RUBBER

Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
CONNECTICUT HARD RUBBER CO., 407 East St., New Haven 9, Conn. ADV. PG. 646.
 Dow Corning Corp., Midland, Mich.
 Garlock Packing Co., The, Palmyra, N. Y.
 General Electric Co., Silicone Products Dept., Watford, N. Y.
 Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
 Neosil Products Div. of Rubber Associates, Inc., 745 Fifth Ave., New York 22, N. Y.
PACIFIC MOULDED PRODUCTS, 905 E. 59th St., Los Angeles, Calif. ADV. PG. 462.
 Rogers Corp., Goodyear, Conn.
 Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Western Felt Works, 4029 Ogden Ave., Chicago, Ill.

SILK SCREEN PROCESSING

Bill Jack Scientific Instrument Co., P. O. Box C-3, Solano Beach, Calif.
 Bolling Industries, Inc., 1117 N. Main Ave., Scranton 2, Pa.
 Croname, Inc., 1747 Grace St., Chicago 13, Ill.
 Fairfield Engineering Corp., 934 Hope St., Springfield, Conn.
 General Research & Supply Co., 572 S. Division Ave., Grand Rapids 3, Mich.
 Globe Electrical Mfg. Co., 1729 W. 134th St., Gardena, Calif.
 Hansen Electronics, 7117 Santa Monica Blvd., Los Angeles 46, Calif.
 Laminated Sheet Products Corp., 449 Neponset St., P.O. Box 390, Norwood, Mass.
LEYSE ALUMINUM CO., Kewaunee, Wis. ADV. PG. 452.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Mechanical Felt & Textiles Co., 50 W. 18th St., Weehawken, N. J.
 Metaplast Co., Inc., 34-51 56th St., Woodside, N. Y.
MINITRON INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
 Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.
 Naz-Dar Co., 465 Milwaukee Ave., Chicago 10, Ill.
 Panelgraphic Corp., P.O. Box 254, Caldwell, N. J.
 Printfold, Inc., 93 Mercer St., New York 12, N. Y.
 Supreme Process Corp., 44 Bond St., Westbury, N. Y.
 Techniques, Inc., 52 Jackson Ave., Hackensack, N. J.
U. S. RADIUM CORP., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.

SLEEVEING—Electrical Insulating

See INSULATION PARTS

SLEEVEING—Varnished or Lacquered

See TUBING—Varnished or Lacquered

SLIDES—Chassis

British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
CHASSIS-TRAK, INC., 6248 E. Iona Rd., Indianapolis 3, Ind. ADV. PG. 681.
GRANT PULLEY & HARDWARE CORP., High St., West Nyack, N. Y. ADV. PG. 577.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 555.
 Remler Company, 2101 Bryant St., San Francisco 10, Calif.

SLIP RING ASSEMBLIES

AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 615.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solano Beach, Calif.
 Bounton Molding Co., Boonton, N. J.
 Breeze Corps, Inc., 700 Liberty Ave., Union, N. J.
COLLECTOR CORP., 304 E. 45th St., New York 17, N. Y. ADV. PG. 557.
 Electro Development Co., 14701 Keswick St., Van Nuys, Calif.
ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 539.
ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 149.
 Gibson Electric Co., The, Box J527, Delmont, Pa.
GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
 Industrial Electrical Works, 1509 Chicago St., Omaha 2, Neb.
 Iron Fireman Mfg. Co., Electronics Div., 2838 E. 9th Ave., Portland 2, Ore.
LAMTEX INDUSTRIES, INC., 51 State St., Westbury, N. Y. ADV. PG. 596.

MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 558.
 Poly-Scientific Corp., Blacksburg, Va.
 Servonic Instruments, Inc., 1143 S. Fair Oaks Ave., Pasadena 2, Calif.
 Sierra Electric Corp., 15100 S. Figueroa St., P.O. Box 85, Gardena, Calif.
 Slip Ring Co. of America, 3612-3622 W. Jefferson Blvd., Los Angeles 21, Calif.
 Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
UNIWAIVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.

SMOKE

See DETECTORS

SOCKETS

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| 1. Crystal | 8. Relay |
| 2. Diode | 9. Sub-Miniature |
| 3. Lamp | 10. Transistor |
| 4. Miniature | 11. Tube |
| 5. Pencil Tube | 12. Turret |
| 6. Pilot Light | 13. UHF Tube |
| 7. Printed Circuit | 14. Wiring Plug |

Accurate Electronics Corp., 169 Abbe Rd., S. Elyria, Ohio, Ill.
 Aeronautical Electric Co., 5656 Northwest Highway, Chicago 30, Ill. 4-6.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. 11.
 Aerovox Corp., Pacific Coast Div., 2724 So. Peck Rd., Monrovia, Calif. 11.
 Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill. 4-7-11.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. 3-4-6-11. ADV. PG. 567.
ALLIED CONTROL CO., INC., 2 East End Ave., New York 21, N. Y. 8. ADV. PG. 126, 127.
 American Brass Co., 414 Meadow St., Waterbury 20, Conn. 3-4.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. 11. ADV. PG. 279.
AMPHENON ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. 4-11. ADV. PG. 158.
ANTON ELECTRONICS LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. 7. ADV. PG. 691.
 Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y. 3-6.
 Arnel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y. 8.
 Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn. 4.
 Berkshire Laboratories, 580 Bank Village, Greenville, N. H. 12.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. 11-13. ADV. PG. 501.
 Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J. 4-11.
 British Electronics Sales Co., Inc., Oakland Garden Station, Flushing 64, N. Y. 1-2-3-4.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. 1-2-4-5-7-8-9-10-11-12-13. ADV. PG. 131-133.
CIRON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. 3-6-7-9. ADV. PG. 638.
 Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio. 7.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. 4-7-9. ADV. PG. 600.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. 11. ADV. PG. 113-118.
 Community Engineering Corp., Box 824, State College, Pa. 13.
 Connector Corp., 6025 N. Keystone Ave., Chicago, Ill.
DESIGN TOOL CORP., 80 Washington St., New York 6, N. Y. 7. ADV. PG. 678.
DIALIGHT CORPORATION, 60 Stewart Ave., Brooklyn 37, N. Y. 3-6. ADV. PG. 120.
 Drake Mfg. Co., 1713 W. Hubbard St., Chicago 22, Ill. 3-4-6.
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza S., Long Island City, N. Y. 3.
 Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa. 1-4-5-7-8-9-10-11-12.
EITEL-MCCULLOUGH, INC., San Bruno, Calif. 11-13. ADV. PG. 128, 129.
ELCO CORP., "M" St. below Erie Ave., Philadelphia 24, Pa. 1-4-7-8-9-10-11-12-13. ADV. PG. 284.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J. 1-4-11-13.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill. 11.
GRAYHILL, INC., 537 Hillgrove Ave., La Grange, Ill. 5. ADV. PG. 493.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. 4-6-7-9-10-11. ADV. PG. 693.
 Javex, P. O. Box 646, Redlands, Calif. 1-4.
 Johnson Co., E. F., Waseca, Minn. 4-11-13.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. 2. ADV. PG. 675.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mt. Vernon, N. Y. 3-6. ADV. PG. 685.
 Livingston Electronic Corp., Livingston, N. J. 4-7-9-11-13.

Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago, Ill. 4-7-11-13.
 Marco Industries Co., 207 S. Helena St., Anaheim, Calif. 6-9.
METHODE MFG. CORP., 2021 W. Churchill St., Chicago 47, Ill. 1-2-4-7-10-11-12-13. ADV. PG. 204.
 Micarta Fabricators, Inc., 5412 N. Clark, Chicago 40, Ill. 6.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass. 1-3-11.
 Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J. 1.
MINITRON, INC., 1105 Second St., Encinitas, Calif. 7. ADV. PG. 622.
 Morse Co., Frank W., 1300 Soldiers Field Rd., Boston 35, Mass. 3-4.
 Mosley Electronics, Inc., 8622 St. Charles Rock Rd., St. Louis 14, Mo. 1.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. 11. ADV. PG. 140, 141.
 Mycalex Tube Socket Corporation, 125 Clifton Blvd., Clifton, N. J. 4-7-9-10-11-13.
 National Co., Inc., 61 Sherman St., Malden 48, Mass. 1-11.
 National Fabricated Products Div. of Hoffman Electronics Corp., 2650 W. Belden Ave., Chicago 47, Ill. 11.
NATIONAL TEL-TRONICS CORP., 35 St. Casimir Ave., Yonkers, N. Y. 4-6-7-11. ADV. PG. 642.
 Permonite Mfg. Co., 444 N. Lake Shore Dr., Chicago 11, Ill. 1-3-4-5-7-11.
 Plastic Mold & Engineering Co., Inc., 157 Clifford St., Providence 3, R. I. 4-7-9-10-11.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif. 13.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill. 11.
 Remler Company, 2101 Bryant St., San Francisco 10, Calif. 11.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. 7. ADV. PG. 530.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. 4-7-9-11. ADV. PG. 643.
 Royal Electric Corp., Pawtucket, R. I. 3.
 Rye Sound Corp., 21 Rye Rd., Rye, N. Y. 9.
SEALECTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. 1. ADV. PG. 464.
 Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif. 11.
STAR EXPANSION PRODUCTS CO., INC., 142 Liberty St., New York 6, N. Y. 14. ADV. PG. 588.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn. 11.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. 1-2-3-4-6-7-9-10-11-12-13. ADV. PG. 733-739.
TECHRON CORP., 81 Washington St., Boston 8, Mass. 2-9-10. ADV. PG. 656.
 Tingstol Co., 1461 W. Grand Ave., Chicago 22, Ill. 3-4-6.
U. S. COMPONENTS, INC., 454 E. 148th St., New York 55, N. Y. 4-7-8-9. ADV. PG. 359.
U. S. GASKET CO., Camden, N. J. 1-2-4-7-9-10-11. ADV. PG. 418, 635.
 Wade Electric Products Co., 400 Jacob St., Sturges, Mich. 3-6.
 Waldon Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill. 1-2-4-11.
 Warren Plastics Corp., Warren, Pa. 1-2-10.
 Winchester Electronics, Inc., Willard Rd., Norwalk, Conn. 11.

SOLDER

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
 All-State Welding Alloys Co., Inc., 249 Ferris Ave., White Plains, N. Y.
 Allen Co., Inc., L. B., 6751 Bryn Mawr Ave., Chicago 31, Ill.
 Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
AMERICAN METAL CO., LTD., THE, 61 Broadway, New York 6, N. Y. ADV. PG. 496.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
 Bow Solder Products Co., Inc., 251 Freeman St., Brooklyn 22, N. Y.
 Cerro De Pasco Sales Corp., 300 Park Ave., New York 22, N. Y.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Dunton Co., M. W., 7 Goff St., Providence, R. I.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 Electrovert Inc., 489 Fifth Ave., New York 17, N. Y.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 Glaser Lead Co., Inc., 31 Wycoff Ave., Brooklyn 37, N. Y.
 Howe International, 431 Danforth, Dept. E-7, Jersey City 5, N. J.
 Indium Corp. of America, 1676 Lincoln Ave., Utica 4, N. Y.
 Johnson Mfg. Co., Inc., Mt. Vernon, Iowa.
KESTER SOLDER CO., 4212 Wrightwood Ave., Chicago 39, Ill. ADV. PG. 435.
 Lenk Mfg. Co., The, 30 Cummington St., Boston 15, Mass.
 London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.

MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 522.
Multicore Sales Corp., 80 Shore Rd., Port Washington, N. Y.
Multicore Solders, Ltd., Multicore Works, Maylands Ave., Hemel Hempstead, Hertfordshire, England.
National Lead Co., 111 Broadway, New York 6, N. Y.
New York Solder Co., 684 E. 133rd St., New York 54, N. Y.
Ruby Chemical Co., 68 McDowell St., Columbus, Ohio.
Soldering Specialties Co., 18 Chatham Rd., Summit, N. J.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

SOLDER—Aluminum

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
Allen Co., Inc., L. B., 6751 Bryn Mawr Ave., Chicago 31, Ill.
All-State Welding Alloys Co., Inc., 249 Ferris Ave., White Plains, N. Y.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
American Solder & Flux Co., 19th & Willard Sts., Philadelphia 40, Pa.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
Bow Solder Products Co., Inc., 251 Freeman St., Brooklyn 22, N. Y.
Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
Dunton Co., M. W., 7 Goff St., Providence, R. I.
Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
Howe International, 431 Danforth, Dept. E-7, Jersey City 5, N. J.
Johnson Mfg. Co., Inc., Mount Vernon, Iowa.
KESTER SOLDER CO., 4212 Wrightwood Ave., Chicago 39, Ill. ADV. PG. 435.
Lenk Mfg. Co., The, 30 Cummington St., Boston 15, Mass.
Louis Laboratories, 1947 Broadway, New York 23, N. Y.

SOLDER—Platinum

ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
BAKER & CO., INC., 113 Astor St., Newark 5, N. J. ADV. PG. 313.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Metz Refining Co., 369 Mulberry St., Newark 2, N. J.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
WESTERN GOLD & PLATINUM CO., 525 Harbor Blvd., Belmont, Calif. ADV. PG. 593.
Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

SOLDER—Silver

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
All-State Welding Alloys Co., Inc., 249 Ferris Ave., White Plains, N. Y.
Allen Co., Inc., L. B., 6751 Bryn Mawr Ave., Chicago 31, Ill.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
BAKER & CO., INC., 113 Astor St., Newark 5, N. J. ADV. PG. 313.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20 Conn.
Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 328.
Howe International, 431 Danforth, Dept. E-7, Jersey City 5, N. J.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Metz Refining Co., 369 Mulberry St., Newark 2, N. J.

Multicore Solders, Ltd., Multicore Works, Maylands Ave., Hemel Hempstead, Hertfordshire, England.
Soldering Specialties Co., 18 Chatham Rd., Summit, N. J.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
United Wire & Supply Corp., Providence 7, R. I.
WESTERN GOLD & PLATINUM CO., 525 Harbor Blvd., Belmont, Calif. ADV. PG. 593.
Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

SOLDER—Rings and Preforms

Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
All-State Welding Alloys Co., Inc., 249 Ferris Ave., White Plains, N. Y.
Allen Co., Inc., L. B., 6751 Bryn Mawr Ave., Chicago 31, Ill.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
BAKER & CO., INC., 113 Astor St., Newark 5, N. J. ADV. PG. 313.
Bow Solder Products Co., Inc., 251 Freeman St., Brooklyn 22, N. Y.
Division Lead Co., 7742 W. 61st Place, Summit, Ill.
GENERAL FINDINGS & SUPPLY CO., INDUSTRIAL DIV., Attleboro, Mass. ADV. PG. 327.
Gibson Electric Co., The, Box J527, Delmont, Pa.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 328.
Howe International, 431 Danforth, Dept. E-7, Jersey City 5, N. J.
Indium Corp. of America, 1676 Lincoln Ave., Utica 4, N. Y.
KESTER SOLDER CO., 4212 Wrightwood Ave., Chicago 39, Ill. ADV. PG. 435.
Multicore Solders Ltd., Multicore Works, Maylands Ave., Hemel Hempstead, Hertfordshire, England.
National Lead Co., 111 Broadway, New York 6, N. Y.
Soldering Specialties Co., 18 Chatham Rd., Summit, N. J.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
WESTERN GOLD & PLATINUM CO., 525 Harbor Blvd., Belmont, Calif. ADV. PG. 593.

SOLDERING IRONS

See **IRONS—Soldering**
TOOLS—Thermal Soldering
TOOLS—Ultrasonic Soldering

SOLENOID COILS

See **COILS—Magnet**

SOLENOID VALVES

See **VALVES—Solenoid**

SOLENOIDS

A. P. W. Co., 72 W. Main St., Rockaway, N. J.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
Artisan Electric Corp., 171 Ridgedale Ave., Norristown, N. J.
Automation Instruments, Inc., Aluminum Foil Transformer Div., 401 E. Green St., Pasadena, Calif.
Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Best Manufacturing Co., Inc., 1200 Grove St., Irvington 11, N. J.
Caltron Products Co., 3518 W. Pico Blvd., Los Angeles 19, Calif.
CANNON ELECTRIC CO., 3208 Humboldt St., Los Angeles 31, Calif. ADV. PG. 44.
Coilcraft, Inc., Cary, Ill.
COMAR ELECTRIC CO., 3349 W. Addison St., Chicago 18, Ill. ADV. PG. 432.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill.
GENERAL CONTROLS Co., Glendale 1, Calif. ADV. PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau Ave., Brooklyn 22, N. Y. ADV. PG. 653.
INDUCTION MOTORS CORP., 570 Main St., Westbury, N. Y. ADV. PG. 266.
KURMAN ELECTRIC CO., INC., 191-193 Newel St., Brooklyn 22, N. Y. ADV. PG. 669.
McQuay-Norris Mfg. Co., 2320 Marconi Ave., St. Louis 10, Mo.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Marine View Electronics Inc., 28 Main St., White Plains, N. Y.
National Acme Co., 170 E. 131st St., Cleveland 8, Ohio.

Naybor Laboratories, Inc., E. V., 2 Yennicoek Ave., Port Washington, N. Y.
New York Coil Co., Phoenixville 12, Pa.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
Oaktron Electric Co., Tinley Park, Ill.
PSP ENGINEERING CO., 8606 Otis St., South Gate, Calif. ADV. PG. 621.
Phillips Control Corp., 59 W. Washington St., Joliet, Ill.
PICKERING & CO., 309 Woods Ave., Oceanside, N. Y. ADV. PG. 617.
R. B. M. Division, Essex Wire Corp., Loganport, Ind.
Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
Rolian Electric Co., 8233 S. Princeton Ave., Chicago 20, Ill.
Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Synchro Start Products, Inc., 8151 Ridgeway Ave., Skokie, Ill.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
U. S. Relay Co., 1740 Albion St., Los Angeles 31, Calif.
Waco, Inc., 2032 Broadway, Santa Monica, Calif.
West Coast Electrical Mfg. Co., 233 W. 116th Place, Los Angeles 61, Calif.

SOLENOIDS—Rotary

Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill.
Leland, Inc., G. H., 123 Webster St., Dayton 2, Ohio.
Magnuson Engineers, Inc., 509 Emory St., San Jose 10, Calif.
Marine View Electronics Inc., 28 Main St., White Plains, N. Y.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
Oaktron Electric Co., Tinley Park, Ill.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Waco, Inc., 2032 Broadway, Santa Monica, Calif.

SOLENOIDS—Sub-Miniature

A. P. W. Co., 72 N. Main St., Rockaway, N. J.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau Ave., Brooklyn 22, N. Y. ADV. PG. 653.
INDUCTION MOTORS CORP., 570 Main St., Westbury, N. Y. ADV. PG. 266.
KURMAN ELECTRIC CO., INC., 191-193 Newel St., Brooklyn 22, N. Y. ADV. PG. 669.
Marine View Electronics, Inc., 28 Main St., White Plains, N. Y.
Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
Naybor Laboratories, Inc., E. V., 2 Yennicoek Ave., Port Washington, N. Y.
Oaktron Electric Co., Tinley Park, Ill.
PSP ENGINEERING CO., 8606 Otis St., South Gate, Calif. ADV. PG. 621.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Telex, Inc., Telex Park, St. Paul 1, Minn.
Tur-Bo Jet Products, Inc., 424 S. San Gabriel Blvd., San Gabriel, Calif.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
Waco, Inc., 2032 Broadway, Santa Monica, Calif.
West Coast Electrical Mfg. Corp., 233 W. 116th Place, Los Angeles 61, Calif.

SOLVENTS—Epoxy Resin

Aries Laboratories, Inc., 45-33 Davis St., Long Island City 1, N. Y.
Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
George Co., P. D., 5200 N. Second St., St. Louis, Mo.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Mona Industries, Inc., Paterson 4, N. J.

SOLVENTS—Oil & Grease

Borden Co., The, Chemical Div., 350 Madison Ave., New York 17, N. Y.
Cobehm, Inc., 100 Passaic Ave., Caldwell, N. J.
Dow Chemical Co., Midland, Mich.
du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
Enthone, Inc., 442 Elm St., New Haven 2, Conn.
Fidelity Chemical Products Corp., 472 Frellinghuysen Ave., Newark, N. J.
George Co., P. D., 5200 N. Second St., St. Louis, Mo.
HOUHLIAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.
London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.

SOLVENTS—Rosin Flux

Alpha Metals, Inc., 60 Water St., Jersey City, N. J.

Cobehn Inc., 100 Passaic Ave., Caldwell, N. J.
Johnson Mfg. Co., Inc., Mt. Vernon, Iowa.
Lindon Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.

SONAR

Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.
Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Chesapeake Instrument Corp., Shadyside, Md.
Dalmo Victor Co., Div. of Textron, Inc., 1515 Industrial Way, Belmont, Calif.
Edo Corp., College Point, N. Y.
Goodrich Industrial Products Co., B. F., 500 S. Main St., Akron 18, Ohio.
Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles 7, Calif.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Mass Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.

SOUND SYSTEMS—Complete

AMPEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 285.
Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
Califone Corp., 1041 N. Sycamore Ave., Hollywood 38, Calif.
Dukane Corp., St. Charles, Ill.
Executone, Inc., 415 Lexington Ave., New York 17, N. Y.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
Lesia, Via Bergamo 21, Milan, Italy.
Loge Sound Engineers, J. M., 2171 W. Washington Blvd., Los Angeles 18, Calif.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.
Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
Melody Master Mfg. Co., 2842 N. Cicero Ave., Chicago 41, Ill.
Neill Co., Inc., R. W. 4320 Montrose Ave., Chicago 41, Ill.
Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.
Seeburg, J. P., A Div. of Fort Pitt Industries, Inc., 1500 N. Dayton St., Chicago 22, Ill.
Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

SPACERS—Bar See PARTS for COLOR TV TUBES

SPEAKER DRIVER UNITS

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
Hartley Products Co., 521 E. 162nd St., New York 51, N. Y.
Jensen Mfg. Co., 6601 S. Laramie Ave., Chicago 38, Ill.
Lansing Sound, Inc., James B., 2439 Fletcher Drive, Los Angeles 26, Calif.
Lesia, Via Bergamo 21, Milan, Italy.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Racon Electric Co., 1261 Broadway, New York 1, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 514.

SPEAKERS

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
AMPEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 285.
Arnold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
Becker Electronics Mfg. Corp., Horton & Rockaway Aves., Valley Stream, N. Y.
Best Mfg. Co., Inc., 1200 Grove St., Irvington 11, N. J.
Bozak Mfg. Co., R. T., Box 966, Darien, Conn.
British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
Carbonneau Industries, Inc., 100 Lexington S.W., Grand Rapids, Wis.
Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 17, Ill.
Dukane Corp., St. Charles, Ill.
Duotone Co., Inc., Keyport, N. J.
Eltran Corp., St. Anne, Ill.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
Hartley Products Co., 521 E. 162nd St., New York 51, N. Y.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Heppner Mfg. Co., P. O. Box 612, Round Lake, Ill.
Holl Audio Inc., 5014 N. Encinita Ave., Temple City, Calif.
Jensen Mfg. Co., 6601 S. Laramie Ave., Chicago 38, Ill.
KNOWLES ELECTRONICS, INC., 9400 Belmont Ave., Franklin Park, Ill. ADV. PG. 178.
Lansing Sound Inc., James B., 2439 Fletcher Drive, Los Angeles 26, Calif.
Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
Lesia, Via Bergamo 21, Milan, Italy.
McGregor Electronic Industries, Inc., McGregor, Iowa.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.
Molded Fibreglas Co., 4401 Benefit Ave., Ashtabula, Ohio.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Oxford Electric Corp., 3911 S. Michigan Ave., Chicago 15, Ill.
Perfection Electric Co., 2635 S. Wabash Ave., Chicago 16, Ill.
PICKERING & CO., 309 Woods Ave., Oceanside, N. Y. ADV. PG. 617.
Quam-Nichols Co., Marquette Rd. & Prairie Ave., Chicago 37, Ill.
Racon Electric Co., 1261 Broadway, New York 1, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Radio Mfg. Engineers, Inc., 501 Walnut St., Washington, Ill.
Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
Setchell Carlson, Inc., 330 Fifth Ave., New Brighton, Minn.
SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 674.
Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Telex, Inc., Telex Park, St. Paul 1, Minn.
UNIVERSITY LOUDSPEAKERS INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 514.
Wright-Zimmerman, Inc., New Brighton, Minn.

SPEAKERS—Dual Cone

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
Carbonneau Industries, Inc., 100 Lexington Ave., S.W., Grand Rapids, Mich.
Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
Duotone Co., Inc., Keyport, N. J.
Electro-Voice Mfg. Co., Inc., Buchanan, Mich.
McGregor Electronic Industries, Inc., McGregor, Iowa.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Oxford Electric Corp., 3911 S. Michigan Ave., Chicago 15, Ill.
Quam-Nichols Co., Marquette Rd. & Prairie Ave., Chicago 37, Ill.
Racon Electric Co., 1261 Broadway, New York 1, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 514.

SPEAKERS—Flame & Explosion-Proof

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
McGregor Electronic Industries, Inc., McGregor, Iowa.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.
Racon Electric Co., 1261 Broadway, New York 1, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 514.

SPEAKERS—Marine Speaker Systems

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
Marconi's Wireless Telegraph Co., Ltd., 23-25 Beaver St., New York 4, N. Y.
Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
Racon Electric Co., 1261 Broadway, New York 1, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
Remler Company, 2101 Bryant St., San Francisco 10, Calif.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 514.

SPECTROMETERS—Mass

Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.

SPECTROMETERS and SPECTROGRAPHS

American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
American Optical Co., Instrument Div., Box A, Buffalo 15, N. Y.
Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Devtron Engineering, 1 Winslow St., Redwood City, Calif.
Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
National Spectrographic Labs., Inc., 6300 Euclid Ave., Cleveland 3, Ohio.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
Philips Electronics, Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
Scientific Instruments Div., Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.

SPECTROPHOTOMETERS

American Electronic Labs., Inc., 121 N. 7th St., Philadelphia 6, Pa.
American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.

American Optical Co., Instrument Div., Box A, Buffalo 15, N. Y.
Applied Physics Corp., 362 W. Colorado St., Pasadena 1, Calif.
Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
Coleman Instruments, Inc., 318 Madison St., Maywood, Ill.
Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
Magnuson Engineers, Inc., 509 Emory St., San Jose 10, Calif.
Perkin-Elmer Corp., The, Main Ave., Norwalk, Conn.
Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
Scientific Instruments Div., Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.

SPECTROSCOPIC SOURCE UNITS

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
National Spectrographic Labs., Inc., 6300 Euclid Ave., Cleveland 3, Ohio.

SPEECH INPUT CONSOLES

See **AMPLIFIERS—Audio Input Systems**

SPEED CONTROLS AC MOTORS

See **CONTROLS—Electronic AC Motor Speed**

SPLICERS—for Magnetic Recording Tape

ELECTROMATION CO., 1646 Eighteenth St., Santa Monica, Calif. ADV. PG. 692.
Multicore Solders, Ltd., Multicore Works, Maylands Ave., Hemel Hempstead, Hertfordshire, England.
Robins Industries Corp., 214-26 41st Ave., Bayside, N. Y.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.

SPRINGS

Accurate Spring Mfg. Co., 3811 W. Lake St., Chicago, Ill.
Ace Spring Mfg. Co., 77 W. Houston St., New York 12, N. Y.
BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 311.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 311.
Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.
Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
Dudek & Bock Spring & Mfg. Co., 4018 W. Grand Ave., Chicago 51, Ill.
Dzus Fastener Co., Inc., Box 185, Babylon, N. Y.
Eastern Tool & Specialty Co., 1 Montgomery St., Belleville 9, N. J.
Exacto Industries, Inc., 8730-36 Santa Monica Blvd., Los Angeles 46, Calif.
GIBSON CO., WILLIAM D., THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 311.
I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.

INSTRUMENT SPECIALTIES CO., INC., 254 Bergen Blvd., Little Falls, N. J. ADV. PG. 240.
Kleiner Metal Specialties, Inc., P.O. Box K, Dunellen, N. J.
Lee Spring Co., Inc., 32 Main St., Brooklyn 1, N. Y.
Mid-West Spring Mfg. Co., Mentone, Ind.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 311.
Newcomb Spring Corp., The, 177 E. Hawthorne Ave., Valley Stream, N. Y.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 311.
P I C Design Corp., 477 Atlantic Ave., East Rockaway, N. Y.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 311.
Reliable Spring & Wire Forms Co., Fulton Rd. & Paris Ave., Cleveland 9, Ohio.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 311.
Sheffco Mfg. Co., Grand & Ruby Aves., Palisades Park, N. J.
Stanley Tools, New Britain, Conn.
Stone City Machine & Tool Co., Inc., P.O. Box 351, 1206 Seventh St., Bedford, Ind.

Thomas & Sons, Inc., William, Slocum Ave., Ridgefield, N. J.
Trent Tube Co., East Troy, N. Y.
Wales-Strippit Co., Akron, New York.
Walasco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

SPRINGS—Antenna Tension

Accurate Spring Mfg. Co., 3811 W. Lake St., Chicago, Ill.
BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 311.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 311.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Communication Products Co., Inc., Marlboro, N. J.
GIBSON CO., WILLIAM D., THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 311.
HK METAL CRAFT MFG. CORP., 3775 Tenth Ave., New York 34, N. Y. ADV. PG. 630.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 311.
Newcomb Spring Corp., The, 177 E. Hawthorne Ave., Valley Stream, N. Y.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 311.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 311.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 311.
Wind Turbine Co., E. Market St. & Penna. R.R., West Chester, Pa.

SPRINGS—Instrument Hairsprings

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
American Laubscher Corp., 250 W. 57th St., Flisk Bldg., New York 19, N. Y.
BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 311.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 311.
Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
Dudek & Bock Spring & Mfg. Co., 4018 W. Grand Ave., Chicago 51, Ill.
Exacto Industries, Inc., 8730-36 Santa Monica Blvd., Los Angeles 46, Calif.
GIBSON CO., WILLIAM D., THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 311.
Instrument Wire Co., 41 Kendall Ave., Maplewood, N. J.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 311.
Newcomb Spring Corp., The, 177 E. Hawthorne Ave., Valley Stream, N. Y.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 311.
Precision Products Co. Inc., of Waltham, 26 Bedford St., Waltham 54, Mass.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 311.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 311.
Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

SPRINGS—Precision

Accurate Spring Mfg. Co., 3811 W. Lake St., Chicago, Ill.
Ace Spring Mfg. Co., 77 West Houston St., New York 12, N. Y.
American Laubscher Corp., 250 W. 57th St., Flisk Bldg., New York 19, N. Y.
BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 311.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 311.
Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.
Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
Dudek & Bock Spring & Mfg. Co., 4018 W. Grand Ave., Chicago 51, Ill.
GIBSON CO., WILLIAM D., THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 311.
INSTRUMENT SPECIALTIES CO., INC., 254 Bergen Blvd., Little Falls, N. J. ADV. PG. 240.
Lee Spring Co., Inc., 32 Main St., Brooklyn 1, N. Y.
Lewis Spring & Mfg. Corp., 2656 W. North Ave., Chicago 47, Ill.
Mid-West Spring Mfg. Co., Mentone, Ind.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 311.
Newcomb Spring Corp., The, 177 E. Hawthorne Ave., Valley Stream, N. Y.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 311.
P I C Design Corp., 477 Atlantic Ave., East Rockaway, N. Y.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 670.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 311.
Reliable Spring & Wire Forms Co., Fulton Rd. & Paris Ave., Cleveland 9, Ohio.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 311.
Thomas & Sons, Inc., William, Slocum Ave., Ridgefield, N. J.
Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

STABILIZERS

See **REGULATORS—Voltage Regulators & Stabilizers**

STAMPED CIRCUITS

See **CIRCUITS—Printed, Stamped or Etched**

STAMPS—Marking

Ackerman-Gould Co., 92 Bleecker St., New York, N. Y.
Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
Diamond-Union Stamp Works, 81 Washington St., Boston 8, Mass.
Griffin Co., John, 2157 James Ave., St. Paul 5, Minn.
KRENGEL MFG. CO., INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 690.
Noble & Westbrook Mfg. Co., 27 Westbrook St., East Hartford 8, Conn.
Nummell Stamp & Tool Co., Huguenot Park, Staten Island 12, N. Y.
PRECISE MEASUREMENTS CO., R. D., # 1, Millbrook Rd., Flemington, N. J. ADV. PG. 399.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.

STANDARDS—Capacitance

STANDARDS—Frequency

See **INSTRUMENTS—Electrical Measuring**

STANDARDS—Frequency, Microwave

See **MICROWAVE ACCESSORIES**

STANDARDS—Inductance

See **INSTRUMENTS—Electrical Measuring**

STANDARDS—Laboratory Time

Airmec, Ltd., High Wycombe, Buckinghamshire, England.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
Nelson Instrument Co., 607 Howard St., Evanston, Ill.
Norrmann Laboratories, Ernst, Williams Bay, Wis.
Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.
Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 468.

STANDARDS—Resistance

See **INSTRUMENTS—Electrical Measuring**

STANDARDS EQUIPMENT—Calibration

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
Allegany Instrument Co., Inc., 1091 Willis Mountain, Cumberland, Md.
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., DEPT. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 680.
Fluke Mfg. Co., Inc., 1111 W. Nickerson St., Seattle 99, Wash.
GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684.
Haller, Raymond & Brown, Inc., State College, Pa.
Julie Research Laboratories, 556 W. 168th St., New York 32, N. Y.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
Optron Corp., 3526 State St., Santa Barbara, Calif.
PHYSICS RESEARCH LABS., INC., P.O. Box 555, Hempstead, N. Y. ADV. PG. 682.
RADIO FREQUENCY LABS, INC., Boonton 2, N. J. ADV. PG. 555.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.

STANDARD WAVE

See **DETECTORS**

STANDS—Microphone

ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
Astatic Corp., Conneaut, Ohio.
Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
Bruehl & Kjaer, Naerum, Denmark.

ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
Lesz, Via Bergamo 21, Milan, Italy.
O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
Racon Electric Co., 1261 Broadway, New York 1, N. Y.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Webcor, Inc., Chicago, Ill.

STANDS—Speaker

Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.

SEATITE

See INSULATION MATERIALS

STETHOSCOPES—Amplifying

Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
Electro-Medical Lab., Inc., South Woodstock 8, Vt.
Maico Co., Inc., 21 N. Third St., Minneapolis, Minn.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Telex, Inc., Telex Park, St. Paul 1, Minn.

STILLS & DEMINERALIZERS

See DEMINERALIZERS & STILLS—Water

STIMULATORS

Applegate & Co., C. J., 1840 24th St., Boulder, Colo.
Electro-Medical Lab., Inc., South Woodstock 8, Vt.
Electrodyn Co., Endicott St., Norwood, Mass.
Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah.
Grass Instrument Co., 101 Old Colony Ave., Quincy, Mass.
Holland Electronics, Inc., 40 Great Jones St., New York 12, N. Y.
Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.
Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
Nelson Instrument Co., 607 Howard St., Evanston, Ill.
Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
Teca Corp., 80 Main St., White Plains, N. Y.
Wappler, Inc., 27-10 Astoria Blvd., Long Island City 2, N. Y.

STOOLS & BENCHES—for Work Assembly

Amco Engineering Co., 7335 Ainslie St., Chicago 31, Ill.
Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
Cramer Posture Chair Co., 1205 Charlotte St., Kansas City 6, Mo.
Royal Metal Mfg. Co., 175 N. Michigan Ave., Chicago 1, Ill.
Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.

STRAIGHTENERS—Pin, Tube

DURO SPECIALTY CO., INC., 811 Boston St., Lynn, Mass. ADV. PG. 284.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
Production Tool & Fixture Co., 37 West Main St., Oyster Bay, N. Y.
STAR EXPANSION PRODUCTS CO., INC., 142 Liberty St., New York 6, N. Y. ADV. PG. 588.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

STRAIN INDICATORS

See INDICATORS

STRAIN RELIEFS

AMP INC., 2100 Paxton St., Harrisburg, Pa. ADV. PG. 339.
Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
HEYMAN MFG. CO., Kenilworth 2, N. J. ADV. PG. 597.
WALKER CO., GEORGE, 118 Amsterdam Ave., Passaic, N. J. ADV. PG. 640.
Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

STRIP TRANSMISSION LINES—Microwave

See MICROWAVE ACCESSORIES

STRIPPERS—Wire

See MACHINES—Wire Stripping
WIRE STRIPPERS—Chemical
WIRE STRIPPERS—Hand
WIRE STRIPPERS—Mechanical

STRIPS—Grounding

Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
METAL TEXTILE CORP., 647 E. First Ave., Roselle, N. J. ADV. PG. 450.
Permonite Mfg. Co., 444 N. Lake Shore Dr., Chicago 11, Ill.

STRIPS—Mounting

Aerolite Electronics Corp., 507-26th St., Union City, N. J.
Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 4, Ill.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 685.
Permonite Mfg. Co., 444 N. Lake Shore Dr., Chicago 11, Ill.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 476.
Warren Plastics Corp., Warren, Pa.

STROBOSCOPE—Synchronizer

Chadwick Helmuth Co., 472 E. Duarte Rd., Monrovia, Calif.
Gyro Electronics Co., 325 Canal St., New York, N. Y.
Kemlite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill.
MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 61.
Northeast Electronics Corp., P. O. Box 425, Municipal Airport, Concord, N. H.
Pantek Co., Box 212, El Segundo, Calif.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
WINKLER LABORATORIES, 5225 N. 20th St., Phoenix, Ariz. ADV. PG. 477.

STROBOSCOPES

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 673.
Berkshire Laboratories, 580 Bank Village, Greenville, N. H.
Boulin Instrument Corp., 10 First St., Pelham, N. Y.
COMMUNICATION MEASUREMENTS LAB., INC., 350 Leland Ave., Plainfield, N. J. ADV. PG. 547.
Edgerton, Gernsmausen & Grier, Inc., 160 Brookline Ave., Boston, Mass.
Epic, Inc., 154 Nassau St., New York 38, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
Gyro Electronics Co., 325 Canal St., New York, N. Y.
Kemlite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill.
MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 61.
Nelson Instrument Co., 607 Howard St., Evanston, Ill.
Pantek Co., Box 212, El Segundo, Calif.
SLAUGHTER COMPANY, Piqua 9, Ohio. ADV. PG. 494.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.

SUBMINIATURIZATION SERVICES

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
Daystrom Instrument, Archbald, Pa.
DOTY ACOUSTICAL ELECTRONIC LABS., INC., 431 Broome St., New York 13, N. Y. ADV. PG. 676.
DUNN ENGINEERING ASSOCIATES INC., 186 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 695.
Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
Hansen Electronics, 7117 Santa Monica Blvd., Los Angeles 46, Calif.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
Maico Co., Inc., 21 N. Third St., Minneapolis, Minn.
Metron Corp., 8 Corvett St., Lambertville, N. J.
Microdot, Inc., 220 Pasadena Ave., South Pasadena, Calif.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
PHOTOCIRCUITS CORP., Glen Cove, N. Y. ADV. PG. 396.
Plastronics, P. O. Box 96, Winter Hill 45, Mass.

Ram Meter, Inc., 1100 Hilton Rd., Ferndale, Detroit 20, Mich.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Telex, Inc., Telex Park, St. Paul 1, Minn.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas, Texas. ADV. PG. 280, 281.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

SUPERSONIC EQUIPMENT

Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
Bludworth Marine Div., Kearfoot Co., Inc., 92 Gold St., New York 38, N. Y.
Chesapeake Instrument Corp., Shadyside, Md.
Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

SUPPRESSORS—Auto Radio Ignition

CONTINENTAL CARBON, INC., 13900 Lorain Ave., Cleveland 11, Ohio. ADV. PG. 368.
ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London, W. 3, England.
TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.

SUPPRESSORS—Noise

CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
Interference Measurement Lab., Inc., 907 E. 51st St., Brooklyn 3, N. Y.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
Standard Telephones & Cables, Ltd., Connaught House, 63, Aldwych, London, W. C. 2, England.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London, W. 3, England.
Telesco Corp., 1415 Golf Rd., Des Plaines, Ill.
TOBE DEUTSCHMANN CORP., 921 Providence Highway, Norwood, Mass. ADV. PG. 645.

SURFACE ANALYZERS AND COMPARATORS

See ANALYZER

SURPLUS NEW & USED EQUIPMENT

See Pages 715-731

SUSPENSIONS—for Speaker Cones

Hawley Products Co., St. Charles, Ill.

SWITCHBOARDS—Television Master

Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Marconi's Wireless Telegram Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
Peterson & Neville, Inc., 365 Dorchester Ave., Boston, Mass.

SWITCHES—Automatic

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
Automatic Electric Sales Corp., 1033 W. Van Buren St., Chicago 7, Ill.
Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
Bristol Co., The P. O. Box 1790 EBG, Waterbury 20, Conn.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.

Datascan Inc., 48 Notch Rd., Little Falls, N. J. ADV. PG. 245.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 559.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury, Conn. ADV. PG. 531.
 Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
 Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Philadelphia Scientific Glass Co., Quakertown, Pa.
 Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
 United Electric Controls Co., 85 School St., Watertown, 72, Mass.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

SWITCHES—Automatic Transfer

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
 Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Datascan Inc., 48 Notch Rd., Little Falls, N. J.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

SWITCHES—Coaxial Cable

Admittance-Namco Corp., Farmingdale, N. Y.
ALFORD MFG. CO., INC., 299 Atlantic Ave., Boston, Mass. ADV. PG. 398.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 112.
AUTOMATIC METAL PRODUCTS CORP., 315 Berry St., Brooklyn 11, N. Y. ADV. PG. 626.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland, 14, Ohio. ADV. PG. 278.
DANBURY-KNUDSEN, INC., P. O. Box 170, Danbury, Conn. ADV. PG. 631.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
 Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
 Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. ADV. PG. 574.
 Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind.
 Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
 Thompson Products, Inc., Electronics Div., 2196 Clarkwood Rd., Cleveland 3, Ohio.
TRAD ELECTRONICS CORP., 1001 First Ave., Asbury Park, N. J. ADV. PG. 522.
 Transco Products, Inc., 12210 Nebraska Ave., Los Angeles 25, Calif.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
UNI-WAVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.

SWITCHES—Control

Acro Div. of The Robertshaw-Fulton Controls Co., 2040 E. Main St., Columbus 16, Ohio.
 Alden Systems, Inc., Alden Research Center, Westboro, Mass.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn, 37, N. Y. ADV. PG. 691.
 Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
 Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
 Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
 Automatic Electric Sales Corp., 1033 W. Van Buren St., Chicago 7, Ill.
 Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Carter Parts Co., 3401 Madison, Skokie, Ill.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardsley Ave., Elkhart, Ind. ADV. PG. 223.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 289, 289.
COMPUTER INSTRUMENTS CORP., 92 Madison Ave., Hempstead, N. Y. ADV. PG. 648.
 Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Datascan Inc., 48 Notch Rd., Little Falls, N. J.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 Electro Switch Corp., 167 King Ave., Weymouth 88, Mass.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
 Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
 Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
 Hetherington, Inc., Sharon Hill, Pa.
 J-B-L Instrument Co., Sycamore & Mill Rds., Clifton Heights, Pa.
 Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.
 Lesa, Via Bergamo 21, Milan, Italy.
 Lumenite Electric Co., 407 S. Dearborn St., Chicago 5, Ill.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
 Milli-Switch Corp., 1742 Berkeley St., Santa Monica, Calif.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 National Acme Co., 170 E. 131st St., Cleveland 8, Ohio.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
 Philadelphia Scientific Glass Co., Quakertown, Pa.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 476.
 Reynolds Electric Co., 3000 River Road, River Grove, Ill.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
 Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 Universal Circuit Controls Corp., 3610 Oakton St., Skokie, Ill.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

SWITCHES—Crossbar

Cunningham Son & Co., Inc., James, 33 Litchfield St., Rochester, N. Y.
 North Electric Co., 553 S. Market St., Gallion, Ohio.

SWITCHES—Decade

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
 Deltron, Inc., 2905 N. Leithgow St., Philadelphia 33, Pa.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 J-B-L Instrument Co., Sycamore & Mill Rds., Clifton Heights, Pa.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.

Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
 Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
 Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.

SWITCHES—Duplex

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
 Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
CENTRALAB DIV., GLOBE-UNION INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
 General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 641.

SWITCHES—Electronic

Adler Electronics, Inc., 1 Lefevre Lane, New Rochelle, N. Y.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
 Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 C.G.S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
 Carter Parts Co., 3401 Madison, Skokie, Ill.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Cinema-Television, Ltd., Worsley Bridge Rd., London S.E. 26, England.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
 Datascan Inc., 48 Notch Rd., Little Falls, N. J.
 Dubrow Development Co., 235B Penn St., Burlington, N. J.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
 Dynamics Instrumentation Co., Div. of Alberhill Corp., 1118 Mission St., South Pasadena, Calif.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
 Electro-Mechanical Research, Inc., Ridgefield, Conn.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 233-235.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
HART MFG. CO., THE, 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. ADV. PG. 574.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
 Manning, Maxwell & Moores, Inc., Industrial Products Div., 250 E. Main St., Stratford, Conn.
 Marine Electric Co., 300 Fourth Ave., Brooklyn, N. Y.
 Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
 Milli-Switch Corp., 1742 Berkeley St., Santa Monica, Calif.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Pantek Co., P. O. Box 212, El Segundo, Calif.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Ripley Co., Inc., Middletown, Conn.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
 Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.

ELECTRONIC and ALLIED PRODUCTS

SWITCHES

United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
 Weltronix Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
 White Electron Devices Inc., Roger, Fourth Ave., Haskell, N. J.

SWITCHES—Float Type

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Fla. ADV. PG. 194.
ANTO ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GORN ELECTRIC CO., INC., Main St., Stamford, Conn. ADV. PG. 273.
Lumenite Electric Co., 407 S. Dearborn St., Chicago 5, Ill.
REVERE CORP. OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
Trumbull Components Dept., General Electric Co., 41 Woodford Ave., Plainville, Conn.

SWITCHES—Key

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Automatic Electric Sales Corp., 1033 W. Van Buren St., Chicago 7, Ill.
Capitol Machine Co., The, Switch Div., 36 Balmforth Ave., Danbury, Conn.
Carter Parts Co., 3401 Madison, Skokie, Ill.
Clare & Co., C. P., 3101 Pratt Bldg., Chicago 45, Ill.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
Hetherington, Inc., Sharon Hill, Pa.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Mossman Inc., Donald P., Brewster, N. Y.
Muirhead & Co., Ltd., Beckenham, Kent, England.
North Electric Co., 553 S. Market St., Galion, Ohio.
Rofan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SWITCHCRAFT, INC., 1320 N. Halstead St., Chicago 22, Ill. ADV. PG. 619.
Universal Circuit Controls Corp., 3610 Oakton St., Skokie, Ill.

SWITCHES—Knife

Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
CENTRALAB DIV., GLOBE-UNION INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
INSULINE CORP. OF AMERICA, 186 Granite St., Manchester, N. H. ADV. PG. 582.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
Kolton Mfg. Corp., 123 New Jersey Railroad Ave., Newark, N. J.
Murray Mfg. Corp., 1250 Atlantic Ave., Brooklyn 16, N. Y.
Rofan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Trumbull Components Dept., General Electric Co., 41 Woodford Ave., Plainville, Conn.

SWITCHES—Limit

Acro Div. of The Robertshaw-Fulton Controls Co., 2040 E. Main St., Columbus 16, Ohio.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
Arch Gear Works, Inc., 97 Holmes St., North Quincy 71, Mass.

Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Automatic Electric Sales Corp., 1033 W. Van Buren St., Chicago 7, Ill.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
Control Products, Inc., 306 Sussex St., Harrison, N. J.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
ELECTRA MFG. CO., RESISTOR DIV., 4051 Broadway, Kansas City, Mo. ADV. PG. 338.
Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 546.
General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
Hetherington, Inc., Sharon Hill, Pa.
Janco Corp., 3111 Winona Ave., Burbank, Calif.
Licon Switch & Control Div. of Illinois Tool Works, 2501 N. Keeler Ave., Chicago 39, Ill.
Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.
Mercoird Corp., 4201 Belmont Ave., Chicago 41, Ill.
Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
Milli-Switch Corp., 1742 Berkeley St., Santa Monica, Calif.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
National Acme Co., 170 E. 131st St., Cleveland 5, Ohio.
North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
Spencer Thermostat Div. of Metals & Controls Corp., 31 Forest St., Attleboro, Mass.
UNIMAX SWITCH DIV., THE W. L. MAXSON CORP., Ives Rd., Wallingford, Conn. ADV. PG. 653.
United Electric Controls Co., 85 School St., Watertown 72, Mass.

SWITCHES—Mercury

Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Durakool, Inc., 1010 N. Main St., Elkhart, Ind.
Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
Gordos Corp., 250 Glenwood Ave., Bloomfield, N. J.
Mercoird Corp., 4201 Belmont Ave., Chicago 41, Ill.
Mercury Contacts, Inc., Box 615-E, Far Hills Station, Dayton 9, Ohio.
Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Philadelphia Scientific Glass Co., Quakertown, Pa.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 670.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
Willy-Gunther K. G., 1138 Massachusetts Ave., Arlington, Mass.

SWITCHES—Microwave

See MICROWAVE ACCESSORIES

SWITCHES—Miniature

Acro Div. of The Robertshaw-Fulton Controls Co., 2040 E. Main St., Columbus 16, Ohio.
Admittance-Namco Corp., Farmingdale, N. Y.
APPLIED SCIENCE CORP. OF PRINCETON, P. O. Box 44, Princeton, N. J. ADV. PG. 464, 465.
Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Audivox, Inc., 123 Worcester St., Boston 18, Mass.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Carter Parts Co., 3401 Madison, Skokie, Ill.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardsley Ave., Elkhart, Ind. ADV. PG. 223.

COMPUTER INSTRUMENTS CORP., 92 Madison Ave., Hempstead, N. Y. ADV. PG. 648.
Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 149.
Farnsworth Electronic Co., Pacific Div., 815 S. San Antonio Rd., Palo Alto, Calif.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 559.
General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
GRAYHILL, INC., 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 493.
Grisby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
Hetherington, Inc., Sharon Hill, Pa.
Licon Switch & Control Div., Illinois Tool Works, 2501 N. Keller Ave., Chicago 39, Ill.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Marco Industries Co., 207 S. Helena St., Anaheim, Calif.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
Milli-Switch Corp., 1742 Berkeley St., Santa Monica, Calif.
MINIATURE SWITCH CORP., 36-10 Oceanside Rd., Oceanside, N. Y. ADV. PG. 686.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
National Acme Co., 170 E. 131st St., Cleveland 8, Ohio.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 476.
R-F ELECTRONICS INC., DIV. OF ELECTRO SWITCH CORP., Weymouth, Mass. ADV. PG. 607.
REVERE CORP. OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
Spencer Thermostat Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass.
Stackpole Carbon Co., St. Marys, Pa.
SWITCHCRAFT, INC., 1320 N. Halstead St., Chicago 22, Ill. ADV. PG. 619.
Universal Circuit Controls Corp., 3610 Oakton St., Skokie, Ill.

SWITCHES—Pressure

GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
GORN ELECTRIC CO., INC., Main St., Stamford, Conn. ADV. PG. 273.
Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.

SWITCHES—Pushbutton

Acro Div. of The Robertshaw-Fulton Controls Co., 2040 E. Main St., Columbus 16, Ohio.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Automatic Electric Sales Corp., 1033 W. Van Buren St., Chicago 7, Ill.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Capitol Machine Co., The, Switch Div., 36 Balmforth Ave., Danbury, Conn.
Carter Parts Co., 3401 Madison, Skokie, Ill.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Control Products, Inc., 306 Sussex St., Harrison, N. J.
Cutler-Hammer Inc., 411 N. 12th St., Milwaukee 1, Wis.
DIALIGHT CORP., 60 Stewart Ave., Brooklyn 37, N. Y. ADV. PG. 120.
Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa.
ELECTRA MFG. CO., RESISTOR DIV., 4051 Broadway, Kansas City, Mo. ADV. PG. 338.
Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTON, INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
GRAYHILL, INC., 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 493.
Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
HART MFG. CO., THE, 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
Hetherington, Inc., Sharon Hill, Pa.
Jaidinger Mfg. Co., Inc., The, 1921 W. Hubbard St., Chicago 22, Ill.
Kirkland Co., H. R., 8 King St., Morristown, N. J.
Licon Switch & Control Div. of Illinois Tool Works, 2501 N. Keeler Ave., Chicago 39, Ill.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Marco Industries, Inc., 207 S. Helena St., Anaheim, Calif.
Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
Milli-Switch Corp., 1742 Berkeley St., Santa Monica, Calif.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Mossman, Inc., Donald P., Brewster, N. Y.
Muter Co., The, 1255 S. Michigan Ave., Chicago 5, Ill.
National Acme Co., 170 E. 131st St., Cleveland 8, Ohio.
North Electric Co., 553 S. Market St., Galion, Ohio.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
Richards Electrocraft, Inc., 3743 N. Kedzie Ave., Chicago 18, Ill.
Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
Robco Mfg. Co., 225 W. Main St., Patchogue, N. Y.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
Spencer Thermostat Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SWITCHCRAFT, INC., 1320 N. Halstead St., Chicago 22, Ill. ADV. PG. 619.
UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 65.
Universal Circuit Controls Corp., 3610 Oakton St., Skokie, Ill.
Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
WARD LEONARD ELECTRIC CO., 31 South St., Mount Vernon, N. Y. ADV. PG. 408.

SWITCHES—Remote Control

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
Communication Products Co., Inc., Marlboro, N. J.
Datscan Inc., 48 Notch Rd., Little Falls, N. J.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
ELECTRA MFG. CO., RESISTOR DIV., 4051 Broadway, Kansas City, Mo. ADV. PG. 338.
Electro Switch Corp., 167 King Ave., Weymouth 88, Mass.
Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 559.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
Gyro Electronics Co., 325 Canal St., New York, N. Y.
HAYDON CO. A. W. THE, 238 N. Elm St., Waterbury, Conn. ADV. PG. 531.
Hetherington, Inc., Sharon Hill, Pa.
Hupp Electronics Co., A Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.
Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
Lumenite Electric Co., 407 S. Dearborn St., Chicago 5, Ill.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Plac, Long Island City 1, N. Y.
Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.

PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
POLLAK CORP., JOSEPH, 75-99 Dorchester 22, Mass. ADV. PG. 476.
Pyramid Instrument Corp., 630 Merrick Rd., Lynbrook, N. Y.
Recora Co., Inc., 6100 S. Archer Rd., Summit, Ill.
Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
United Electric Controls Co., 85 School St., Watertown 72, Mass.
Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.
Winterburn Mfg. Co., Box 386, Putnam, Conn.

SWITCHES—Rotary and Band Change

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Carling Electric, Inc., 505 New Park Ave., West Hartford 10, Conn.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
Communication Products Co., Inc., Marlboro, N. J.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
Electro Development Co., 14701 Keswick St., Van Nuys, Calif.
ELECTRO MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 539.
Electro Switch Corp., 167 King Ave., Weymouth 88, Mass.
Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 559.
General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
GRAPHITE METALLIZING CORP., 1052 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 330, 331.
GRAYHILL, INC., 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 493.
Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
INSTRUMENT DEVELOPMENT LABORATORIES, INC., 163 Highland Ave., Needham Heights, Mass. ADV. PG. 611.
INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 480.
J-B-L Instrument Co., Sycamore & Mills Rds., Clifton Heights, Pa.
J-B-T INSTRUMENTS, INC., 432 Chapel St., New Haven 8, Conn. ADV. PG. 503.
Janco Corp., 3111 Winona Ave., Burbank, Calif.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 606.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Micro Switch Div., Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
North Electric Co., 553 S. Market St., Galion, Ohio.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
R-F ELECTRONICS INC., DIV. OF ELECTRO SWITCH CORP., Weymouth, Mass. ADV. PG. 607.
Reynolds Electric Co., 3000 River Road, River Grove, Ill.
Roller-Smith Corp., 1825 W. Market St., Bethlehem, Pa.
Smith Mfg. Co., J. & H., Little Britain Rd., Newburgh, N. Y.
Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
SWITCHCRAFT, INC., 1320 N. Halstead St., Chicago 22, Ill. ADV. PG. 619.
Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 65.
Universal Circuit Controls Corp., 3610 Oakton St., Skokie, Ill.

SWITCHES—Safety

Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
Federal Pacific Products Co., 50 Paris St., Newark 5, N. Y.
Kolton Electric Mfg. Co., 123 New Jersey Railroad Ave., Newark 5, N. J.
Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Murray Mfg. Corp., 1250 Atlantic Ave., Brooklyn 16, N. Y.
Recora Co., Inc., 6100 S. Archer Rd., Summit, Ill.
Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
Trumbull Components Dept., General Electric Co., 41 Woodford Ave., Plainville, Conn.
Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.

SWITCHES—Slide

Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Carling Electric, Inc., 505 New Park Ave., West Hartford 10, Conn.
Carter Parts Co., 3401 Madison, Skokie, Ill.
CENTRALAB DIV., GLOBE-UNION INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
CONTINENTAL CARBON, INC., 13900 Lorain Ave., Cleveland 11, Ohio. ADV. PG. 368.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON, INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
Mallory & Co., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Micro Switch Div., Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
Muter Co., The, 1255 S. Michigan Ave., Chicago 5, Ill.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Stackpole Carbon Co., St. Marys, Pa.
Universal Circuit Controls Corp., 3610 Oakton St., Skokie, Ill.
Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.
Walco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

SWITCHES—Snap Action

Acro Div. of The Robertshaw-Fulton Controls Co., 2040 E. Main St., Columbus 16, Ohio.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Carling Electric, Inc., 505 New Park Ave., West Hartford 10, Conn.
Carter Parts Co., 3401 Madison, Skokie, Ill.
CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardsley Ave., Elkhart, Ind. ADV. PG. 223.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
Control Products, Inc., 306 Sussex St., Harrison, N. J.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
ELECTRA MFG. CO., RESISTOR DIV., 4051 Broadway, Kansas City, Mo. ADV. PG. 338.
Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
Electro Switch Corp., 167 King Ave., Weymouth 88, Mass.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
HART MFG. CO., THE, 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.

ELECTRONIC and ALLIED PRODUCTS

SWITCHES

Hetherington, Inc., Sharon Hill, Pa.
Jaidinger Mfg. Co., Inc., The, 1921 W. Hubbard St., Chicago 22, Ill.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mt. Vernon, N. Y. ADV. PG. 685.
Licon Switch & Control Div. of Illinois Tool Works, 2501 N. Keeler Ave., Chicago 39, Ill.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
Milli-Switch Corp., 1742 Berkeley St., Santa Monica, Calif.
National Acme Co., 170 E. 131st St., Cleveland 8, Ohio.
Network Mfg. Corp., 213 W. Fifth St., Bayonne, N. J.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 476.
Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
Spencer Thermostat Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass.
Square D Co., 4041 N. Richards, Milwaukee, Wis.
Stackpole Carbon Co., St. Marys, Pa.
Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 65.
UNIMAX SWITCH DIV., THE W. L. MAXSON CORP., Ives Rd., Wallingford, Conn. ADV. PG. 653.
United Electric Controls Co., 85 School St., Watertown 72, Mass.
Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.

SWITCHES—Step Type

Automatic Electric Sales Co., 1033 W. Van Buren St., Chicago 7, Ill.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
CINEMA ENGINEERING DIV., AEROVOX CORP., 1100 Chestnut St., Burbank, Calif. ADV. PG. 688.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
ENGINEERED ELECTRONICS CO., 506 E. First St., Santa Ana, Calif. ADV. PG. 623.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 559.
General Electric Co., Ltd., of England (Imtra Corp.), 58 Charles St., Cambridge, Mass.
Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
Luminate Electric Co., 497 S. Dearborn St., Chicago 5, Ill.
North Electric Co., 553 S. Market St., Galion, Ohio.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.

SWITCHES—Sub-Miniature

Acro Div. of The Robertshaw-Fulton Controls Co., 2040 E. Main St., Columbus 16, Ohio.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
COMPUTER INSTRUMENTS CORP., 92 Madison Ave., Hempstead, N. Y. ADV. PG. 648.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
Electro Development Co., 14701 Keswick St., Van Nuys, Calif.
Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 149.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 559.
Grisby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
Licon Switch & Control Div., Illinois Tool Works, 2501 N. Keeler Ave., Chicago 39, Ill.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Micro Switch Div., Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
Milli-Switch Corp., 1742 Berkeley St., Santa Monica, Calif.
MINIATURE SWITCH CORP., 36-10 Oceanside Rd., Oceanside, N. Y. ADV. PG. 686.

Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
R-F ELECTRONICS, INC., DIV. OF ELECTRO SWITCH CORP., Weymouth, Mass. ADV. PG. 607.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
UNIMAX SWITCH DIV., THE W. L. MAXSON CORP., Ives Rd., Wallingford, Conn. ADV. PG. 653.

SWITCHES—Tap

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Carter Parts Co., 3401 Madison, Skokie, Ill.
CINEMA ENGINEERING DIV., AEROVOX CORP., 1100 Chestnut St., Burbank, Calif. ADV. PG. 688.
Communication Products Co., Inc., Marlboro, N. J.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
Eastern Specialty Co., Philadelphia 40, Pa.
Electro-Switch Corp., 167 King Ave., Weymouth 88, Mass.
GRAYHILL, INC., 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 493.
Grisby-Allison Co., 407 N. Salem Ave., Arlington Heights, Ill.
J-B-L Instrument Co., Sycamore & Mill Rds., Clifton Heights, Pa.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 282, 283.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 476.
R-F ELECTRONICS, INC., DIV. OF ELECTRO SWITCH CORP., Weymouth, Mass. ADV. PG. 607.
Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
Universal Circuit Controls Corp., 3610 Oakton St., Skokie, Ill.

SWITCHES—Telemetering

APPLIED SCIENCE CORP. OF PRINCETON, P.O. Box 44, Princeton, N. J. ADV. PG. 464, 465.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
COMPUTER INSTRUMENTS CORP., 92 Madison Ave., Hempstead, N. Y. ADV. PG. 648.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 245.
ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 539.
ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 149.
Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 559.
HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury, Conn. ADV. PG. 531.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
INSTRUMENT DEVELOPMENT LABORATORIES, INC., 163 Highland Ave., Needham Heights, Mass. ADV. PG. 611.
Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 140, 141.
Mycalex Electronics Corp., 125 Clifton Blvd., Clifton, N. J.
Seeburg, J. P., A Div. of Fort Pitt Industries, Inc., 1500 N. Dayton St., Chicago 22, Ill.
Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.

SWITCHES—Time

Aemco, Inc., 62 State St., Mankato, Minn.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. ADV. PG. 638.
Eagle Signal Corp., Moline, Ill.
General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
General Electric Co., Clock and Timer Dept., Ashland, Mass.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury, Conn. ADV. PG. 531.
HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. ADV. PG. 157.
Ingraham Co., E., Bristol, Conn.
International Register Co., 2620 Washington Blvd., Chicago 12, Ill.
Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Paragon Electric Co., Two Rivers, Wisconsin.
Reliance Automatic Lighting Co., 1919 Mead St., Racine, Wis.
Rhodes, Inc., M. H., 30 Bartholomew Ave., Hartford, Conn.
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
Tork Time Controls Inc., 32 Grove St., Mt. Vernon, N. Y.
Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
Willy Guenther K. G., 1138 Massachusetts Ave., Arlington 74, Mass.
Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

SWITCHES—Toggle

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Carling Electric, Inc., 505 New Park Ave., West Hartford 10, Conn.
Carter Parts Co., 3401 Madison, Skokie, Ill.
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Control Products, Inc., 306 Sussex St., Harrison, N. J.
Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
GEE-LAR MFG. CO., DIV. OF GENERAL CEMENT-TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
Hetherington, Inc., Sharon Hill, Pa.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 503.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 685.
Licon Switch & Control Div. of Illinois Tool Works, 2501 N. Keeler Ave., Chicago 39, Ill.
LIECO, INC., 147 Ocean Ave., Lynbrook, N. Y. ADV. PG. 686.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Master Appliance Mfg. Co., Fourth & Ontario Sts., Racine, Wis.
Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
Milli-Switch Corp., 1742 Berkeley St., Santa Monica, Calif.
MINIATURE SWITCH CORP., 36-10 Oceanside Rd., Oceanside, N. Y. ADV. PG. 686.
Network Mfg. Corp., 213 W. Fifth St., Bayonne, N. J.
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

SWITCHES—Transformer

Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
J-B-L Instrument Co., Sycamore & Mill Rds., Clifton Heights, Pa.

SWITCHES—Vacuum

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
CHATHAM ELECTRONICS DIV. OF TUNG-SOL ELECTRIC, INC., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 393.
 Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
DOLINKO & WILKENS, INC., 1901-7 Summit Ave., Union City, N. J. ADV. PG. 508.
EITEL-McCULLOUGH INC., San Bruno, Calif. ADV. PG. 128, 129.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
JENNINGS RADIO MFG. CORP., 970 McLaughlin Ave., P. O. Box 1278, San Jose 8, Calif. ADV. PG. 406, 407.
 Luther Electronic Mfg. Co., 5728 W. Washington Blvd., Los Angeles 16, Calif.
 McQuay-Norris Mfg. Co., 2320 Marconi Ave., St. Louis 10, Mo.
 Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.
 Penta Laboratories, Inc., 312 N. Nopal St., Santa Barbara, Calif.
 Philadelphia Scientific Glass Co., Quakertown, Pa.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 Wallace & Tierman, Inc., 25 Main St., Belleville 9, N. J.

SYNCHROS

Cedar Engineering, Inc., 5806 W. 36th St., Minneapolis 16, Minn.
CLIFTON PRECISION PRODUCTS CO., INC., Broadway at Maple Ave., Clifton Heights, Pa. ADV. PG. 134, 135.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 333-336.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
 Electric Indicator Co., Inc., Camp Ave., Springdale, Conn.
 Ford Instrument Co., Div. of Sperry Rand Corp., 31-10 Thomson Ave., Long Island City 1, N. Y.
INDUCTION MOTORS CORP., 570 Main St., Westbury, N. Y. ADV. PG. 266.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
 Kollsman Instrument Corp., Sub. of Standard Coil Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind.
MINNEAPOLIS-HONEYWELL, BOSTON DIV., 1400 Soldiers Field Rd., Boston 15, Mass. ADV. PG. 445.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Muirhead & Co., Ltd., Beckman, Kent, England.
 Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
OSTER MFG. CO., JOHN, AVIONICS DIV., 1 N. Main St., Racine, Wis. ADV. PG. 130.
PSP ENGINEERING CO., 8608 Otis St., South Gate, Calif. ADV. PG. 621.
 Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.
TRANSICOIL CORP., Worcester, Penna. ADV. PG. 324.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

SYNCHRONIZER STROBOSCOPE

See STROBOSCOPE—Synchronizer

SYNCHROSCOPES

DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
 Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Roller-Smith Corp., 1825 W. Market St., Bethlehem, Pa.
WESTINGHOUSE ELECTRIC CO., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

SYSTEMS—Remote Control

Antlab, 4950 N. High St., Columbus 14, Ohio.
 Babcock Radio Engineering Co., P. O. Box 3097, Van Nuys, Calif.
 Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.

Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif.
BOWMAR INSTRUMENT CORP., 2415 Pennsylvania St., Fort Wayne, Ind. ADV. PG. 538, 539.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 CG Electronics Div. of Gulton Industries, Inc., 305 Dallas St., N.E., Albuquerque, N. M.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Collins Radio Co., Cedar Rapids, Iowa.
 Concord Control Inc., 1282 Soldiers Field Rd., Boston 35, Mass.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Datascan Inc., 48 Notch Rd., Little Falls, N. J.
 Devco Engineering Inc., P. O. Box 387, Caldwell, N. J.
ECLIPSE PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 333-336.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 Feedback Controls, Inc., 899 Main St., Waltham 54, Mass.
 Gates Radio Co., Quincy, Ill.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
 Gyro Electronics Co., 325 Canal St., New York, N. Y.
 Hallamere Electronics Co., 8352 Brookhurst Ave., Anaheim, Calif.
 Haller, Raymond & Brown, Inc., State College, Pa.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 265.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Electronic Engineers, 3973 Lankershim Blvd., North Hollywood, Calif.
JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. ADV. PG. 574.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Lenkurt Electric Co., Inc., 1105 County Rd., San Carlos, Calif.
 Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.
 Manning, Maxwell & Moore, Inc., Industrial Products Div., 250 E. Main St., Stratford, Conn.
 Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
 Parsons Co., Ralph M., Electronics Div., 151 S. DeLacey Ave., Pasadena, Calif.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADIO FREQUENCY LABS, INC., Boonton 2, N. J. ADV. PG. 555.
 Reflectone Corp., Cor. Post Rd. & Myano Lane, Stamford, Conn.
 Robinette Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Shand and Jurs Co., Sub. of General Precision Equipment Corp., Carleton & Eighth Sts., Berkeley 10, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London W.C. 2, England.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
UNION SWITCH & SIGNAL DIV. OF WESTINGHOUSE AIR BRAKE CO., Pittsburgh 18, Pa. ADV. PG. 384, 385.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
 Warren Mfg. Co., Inc., The, Newton Rd., Littleton, Mass.
 Webcor, Inc., Chicago, Ill.

TACHOMETERS

ACROMAG CO., 22519 Telegraph Rd., Detroit 19, Mich. ADV. PG. 492.
AIRPAK PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300.
 American Electronics Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
 Amthor Testing Instrument Co., 45-53 Van Sinderen Ave., Brooklyn 7, N. Y.
 Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
 Boulin Instrument Corp., 10 First St., Pelham, N. Y.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Crown Industrial Products Co., 713 Amsterdam St., Woodstock, Ill.

CURTISS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
D & R, LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. ADV. PG. 698.
 Diehl Mfg. Co., Somerville, N. J.
EASTERN AIR DEVICES, INC., 385 Central Ave., Dover, N. H. ADV. PG. 312.
 Electro Engineering Products Co., 609 W. Lake St., Chicago, Ill.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-40.
 Hupp Instru/Mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
 I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
 King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.
 Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.
 Metron Instrument Co., 432 Lincoln St., Denver 3, Colo.
 Motordyne Inc., 2661 S. Myrtle Ave., Monrovia, Calif.
 Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
OSTER MFG. CO., JOHN, AVIONICS DIV., 1 N. Main St., Racine, Wis. ADV. PG. 130.
SERVOMECHANISMS, INC., MECHATROL DIV., 625 Main St., Westbury, N. Y. ADV. PG. 25.
 Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. Y.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
 Syntorque, Inc., 601 W. 26th St., New York 1, N. Y.
 Teller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
 WacLine, Inc., 35 S. Ct. Clair St., Dayton 2, Ohio.
 Westberg Mfg. Co., 144 S. Coombs St., Napa, Calif.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

TACHOMETERS—Electronic

Airmec Ltd., High Wycombe, Buckinghamshire, England.
AIRPAK PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solano Beach, Calif.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
CURTISS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
 Dynaparc Corp., 5150 Church St., Skokie, Ill.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
 Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
 Erco Engineering Corp., Addison, Ill.
 Foxboro Co., The, Foxboro, Mass.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
 Magtrol, Inc., 38 Virginia Place, Buffalo, N. Y.
 Malco Co., Inc., 21 N. Third St., Minneapolis, Minn.
MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 61.
 Micro Balancing, Inc., 191 Herricks Rd., Garden City Park, N. Y.
 Performance Measurements Co., 15310 W. McNichols, Detroit 35, Mich.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
SERVOMECHANISMS, INC., MECHATROL DIV., 625 Main St., Westbury, N. Y. ADV. PG. 25.
 Servospec Div. of Electro Devices, Inc., 4 Goodwin Ave., Paterson, N. J.
 Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. J.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
UNI-WAVE, INC., 2 Marine St., P. O. Box 474, Farmingdale, N. Y. ADV. PG. 428.
 Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

WANG LABORATORIES, 37 Hurley St., Cambridge 41, Mass. ADV. PG. 630.
WAUGH ENGINEERING CO., 7842 Burnet Ave., Van Nuys, Calif. ADV. PG. 663.
 Weston Mfg. Co., 144 S. Coombs St., Napa, Calif.
 Western Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

TAPE MECHANISMS

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 Alwac Corp., 13041 S. Cerise Ave., Hawthorne, Calif.
AMPX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 285.
 Audio-Master Corp., 17 E. 45th, New York 17, N. Y.
 Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
 Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
DAVIES LABORATORIES DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 10721 Hanna St., Beltsville, Md. ADV. PG. 446.
 Electro Data Div. of Burroughs Corp., 460 Sierra Madre Villa, Pasadena 6, Calif.
 General Kinetics Inc., 555 23rd St., S., Arlington 2, Va.
 Magnecord Inc., 1101 N. Kilbourn Ave., Chicago 24, Ill.
 Maico Co., Inc., 21 N. Third St., Minneapolis, Minn.
 Midwestern Instruments, 41 & Sheridan Rd., Tulsa, Okla.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Presto Recording Corp., P. O. Box 500, Paramus, N. J.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Technical Associates, 140 W. Providencia Ave., Burbank, Calif.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.
 Webcor, Inc., Chicago, Ill.
 Webster Electric Co., 1900 Clark St., Racine, Wis.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Whiteford Laboratory, 420 Market St., San Francisco 11, Calif.

TAPES—Electrical Insulation

Accurate Mfg. Co., 44 Hepworth Place, Garfield, N. J.
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
 Bishop Mfg. Corp., 10 Canfield Rd., Cedar Grove, N. J.
 Bonny Mfg. Corp., 339 Auburn St., Auburndale, Mass.
BORDEN CO., RESINITE DEPT., Box 1589, Santa Barbara, Calif. ADV. PG. 604.
 Brady Co., W. H., 727 W. Glendale Ave., Milwaukee 12, Wis.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
 Chart-Pak, Inc., Leeds, Mass.
CONNECTICUT HARD RUBBER CO., 407 East St., New Haven 9, Conn. ADV. PG. 646.
CONTINENTAL-DIAMOND FIBRE CORP., Newark 100, Delaware. ADV. PG. 345-348.
 Dow, Corning Corp., Midland, Mich.
 Dunton Co., M. W., 7 Goff St., Providence, R. I.
ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 232.
 General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Johns-Manville Dutch Brand Division, 7800 Woodlawn Ave., Chicago 19, Ill.
MAIGNE CO., O. J., 321 Pearl St., New York 38, N. Y. ADV. PG. 679.
 Mica Insulator Co., Schenectady 1, N. Y.
 Minnesota Mining & Mfg. Co., 900 Fauquier Ave., St. Paul 6, Minn.
 Minnesota Mining & Mfg. Co., Magnetic Tape Div., 900 Bush Ave., St. Paul 6, Minn.
 Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Mystik Adhesive Products Co., 2635 N. Kildare, Chicago, Ill.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 568.
 New England Tape Co., Hudson, Mass.
 New Jersey Wood Finishing Co., Amboy Ave., Woodbridge, N. J.
 Okonite Co., The, Canal St., Passaic, N. J.
 Permacel Tape Corp., U. S. Highway 1, New Brunswick, N. J.
 Polyken Sales Div. of The Kendall Co., 309 W. Jackson Blvd., Chicago 6, Ill.
POLYMER CORP., THE, Reading, Pa. ADV. PG. 502.
 Resin Industries, P. O. Box 1589, Santa Barbara, Calif.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 Webcor, Inc., Chicago, Ill.
 Wright & Sons Co., William E., West Warren, Mass.

TAPES—Lacing

See **CORDS—Lacing**

TAPES—Recording

Audio Devices Inc., 444 Madison Ave., New York 22, N. Y.

Audio-Master Corp., 17 E. 45th St., New York 17, N. Y.
 Duotone Co., Inc., Keyport, N. J.
 Electro Data Div. of Burroughs Corp., 460 Sierra Madre Villa, Pasadena 6, Calif.
 Ferrodynamics Corp., Gregg & Route 17, Lodi, N. J.
 Fidelitone, Inc., 6415 Ravenswood, Chicago 26, Ill.
 Minnesota Mining & Mfg. Co., Magnetic Tape Div., 900 Bush Ave., St. Paul 6, Minn.
 Orradio Industries, Inc., Shamrock Circle, Opelika, Ala.
 Perno, Inc., 6415 Ravenswood Ave., Chicago 26, Ill.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Radio Corp. of America, Consumer Products Div., Camden 8, N. J.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Recton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.
 Rees Soundcraft Corp., 10 E. 52nd St., New York 22, N. Y.
 Sorensen Industrial Electronic Co., Route 10, Dover, N. J.
 Zephyr Products Co., 129 E. 124th St., New York 55, N. Y.

TECHNICAL BOOKS—Publishers

Academic Press Inc., 125 E. 23rd St., New York 10, N. Y.
 Addison-Wesley Publishing Co., Route 128, Reading 8, Mass.
 American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
 American Institute of Electrical Engineers, 33 W. 39th St., New York, N. Y.
 American Radio Relay League, West Hartford, Conn.
 American Standards Association, 70 E. 45th St., New York, N. Y.
 Audel & Co., Theodore, 49 W. 23rd St., New York, N. Y.
 Bernards Publishers Ltd., The Gramplans, Western Gate, London W 6, England.
 Blakiston Co., 1012 Walnut St., Philadelphia 5, Pa.
 Boyce-Roche Book Co., 460 Bloomfield Ave., Montclair, N. J.
 Chapman & Hall Ltd., 37 Essex St., London, W. C. 2, England.
 Day Co., Inc., John, 62 W. 45th St., New York, N. Y.
 Dover Publications Inc., 1780 Broadway, New York, N. Y.
 Editors and Engineers Ltd., Santa Barbara, Calif.
 Electronics Research Publishing Co., Inc., 480 Canal St., New York 13, N. Y.
 Elsevier Publishing Co., Inc., 215 Fourth Ave., New York, N. Y.
 Engineers Council for Professional Development, 29 W. 39th St., New York, N. Y.
 Federal Telephone & Radio Corp., Publication Dept., 67 Broad St., New York 4, N. Y.
 Frederick Research Corp., 4630 Montgomery Ave., Bethesda, Md.
 Harper & Brothers, 49 E. 33rd St., New York, N. Y.
 Industrial Research Service, Dover, N. H.
 Institute of Radio Engineers, Inc., 1 E. 79th St., New York, N. Y.
 International Publishers Co., 381 Fourth Ave., New York, N. Y.
 Interscience Publishers Inc., 215 Fourth Ave., New York 3, N. Y.
 Irwin Inc., Richard D., 3201 S. Michigan Ave., Chicago 16, Ill.
 Kalite Technical Co., Inc., 715 Mattison Ave., Asbury Park, N. J.
 Johnson Research Corp., Bethpage, N. Y.
 MacMillan Co., The, 60 Fifth Ave., New York 11, N. Y.
 McGraw-Hill Book Company, Inc., 330 W. 42nd St., New York 36, N. Y.
 Maedel Publishing House, 593 East 38th St., Brooklyn 3, N. Y.
 National Bureau of Standards, Washington, D. C.
 Nelson & Sons, Thomas, 385 Madison Ave., New York, N. Y.
 Oxford University Press, 114 Fifth Ave., New York, N. Y.
 Pergamon Press Inc., 122 E. 55th St., New York 22, N. Y.
 Philips Gloeilampenfabrieken, N. V., Eindhoven, The Netherlands.
 Philosophical Library, Publishers, 15 E. 40th St., New York 16, N. Y.
 Pitman Publishing Corp., 2 W. 45th St., New York, N. Y.
 Prentice-Hall, Inc., 70 Fifth Ave., New York, N. Y.
 Princeton University Press, Princeton, N. J.
 Radcraft Publications Inc., 25 W. Broadway, New York, N. Y.
 Radio Corporation of America, R C A Laboratories Div., Princeton, N. J.
 Rider Publications Inc., John F., 480 Canal St., New York 13, N. Y.
 Rinehart Books Inc., 232 Madison Ave., New York 16, N. Y.
 Ronald Press Co., The, 15 E. 26th St., New York 10, N. Y.
SAMS & CO., INC., HOWARD W., 2201 E. 46th St., Indianapolis 5, Ind. ADV. PG. 533.
 Stechert-Hafner Inc., 31 East 10th St., New York, N. Y.
 Stockman Electronics Research Co., 543 Lexington St., Waltham 54, Mass.
 Technical Associates Inc., 129 W. 52nd St., New York 19, N. Y.

Technical Publishing House, 4 Tyler Rd., Lexington 73, Mass.
 United Catalog Publishers, Inc., 60 Madison Ave., Hempstead, N. Y.
 Universal Scientific Co., Inc., Vincennes, Ind.
 University of Chicago Press, The, Chicago, Ill.
 VanNostrand Co., Inc., D., 250 Fourth Ave., New York 3, N. Y.
 Wiley & Sons Inc., John, 440 Fourth Ave., New York, N. Y.

TECHNICAL WRITING—Electronic

AVR Publications Inc., 41 E. 42nd St., New York 17, N. Y.
 Cook Co., The, Ken, 9929 W. Silver Spring Rd., Milwaukee, Wis.
DUNN ENGINEERING ASSOCIATES INC., 186 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 695.
 Kalite Technical Co., Inc., 715 Mattison Ave., Asbury Park, N. J.
 McGraw-Hill Book Co., Technical Writing Service, 330 W. 42nd St., New York 36, N. Y.
 Publication Engineering Consultants, 93 Nassau St., New York 38, N. Y.
SAMS & CO., INC., HOWARD W., 2201 E. 46th St., Indianapolis 5, Ind. ADV. PG. 533.
 Technical Associates Inc., 129 W. 52nd St., New York 19, N. Y.
 Technical Publishing House, 4 Tyler Rd., Lexington 73, Mass.

TEES—Microwave

See **MICROWAVE ACCESSORIES**
Hybrid Junctions—Microwave

TEFLON

See **PLASTIC MATERIALS**
Tetrafluoroethylene

TELEMETERING SYSTEMS—Electronic

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
APPLIED SCIENCE CORP. OF PRINCETON, P. O. Box 44, Princeton, N. J. ADV. PG. 464, 465.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
 Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 78-80.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Control Corp., 718 Central Ave., Minneapolis 14, Minn.
 Dalmo Victor Co., Div. of Textron, Inc., 1515 Industrial Way, Belmont, Calif.
DAVIES LABORATORIES DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 10721 Hanna St., Beltsville, Md. ADV. PG. 446.
DORSETT LABORATORIES, INC., 401 E. Boyd St., Box 862, Norman, Okla. ADV. PG. 460.
 Dwyer Engineering Co., Inc., Box 483, Nashua, N. H.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 Electro-Mechanical Research, Inc., Ridgefield, Conn.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 233-235.
 Farnsworth Electronics Co., Div. of IT&T, 3700 E. Pontiac St., Fort Wayne, Ind.
 Foxboro Co., The, Foxboro, Mass.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 563.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 559.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Hallamore Electronics Co., 8352 Brookhurst Ave., Anaheim, Calif.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 265.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Manning, Maxwell & Moore, Inc., Industrial Products Div., 250 E. Main St., Stratford, Conn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
NORTHEASTERN ENGINEERING, INC., Manchester, N. H. ADV. PG. 518, 519.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 200-202.
 Omega Instrument Co., Box 495M, Pasadena, Calif.
 Parsons Co., Ralph M., Electronics Div., 151 S. DeLacey Ave., Pasadena, Calif.

POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
Radiation, Inc., Melbourne, Fla.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 555.
Seeburg, J. P., A Div. of Fort Pitt Industries, Inc., 1500 N. Dayton St., Chicago 22, Ill.
Shand and Jurs Co., Sub. of General Precision Equipment Corp., Carleton & Eighth Sts., Berkeley 10, Calif.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
Stelma, Inc., 190 Henry St., Stamford, Conn.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Taller & Cooper Co., 75 Front St., Brooklyn, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia 4, Pa.
Telemetering Associates, 6419 Indigo St., Houston, Texas.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
United Electrodynamics Div. of United Geophysical Co., Inc., 1200 S. Marengo, Pasadena, Calif.
Warren Mfg. Co., Inc., The, Newtown Rd., Littleton, Mass.
WAUGH ENGINEERING CO., 7842 Burnet Ave., Van Nuys, Calif. ADV. PG. 663.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

TELEPHONES—Handsets

Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
Automatic Electric Sales Corp., 1033 W. Van Buren St., Chicago 7, Ill.
Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
North Electric Mfg. Co., 553 S. Market St., Galion, Ohio.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Remler Company, 2101 Bryant St., San Francisco 10, Calif.
Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
Shure Brothers, Inc., 246 Hartrey Ave., Evanston, Ill.
Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
TELECOM, INC., 1019 Admiral Blvd., Kansas City, Mo. ADV. PG. 661.
Telephonics Corp., Park Ave., Huntington, N. Y.

TELEPHONES—Handsets, Sound Powered

Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
Automatic Electric Sales Corp., 1033 W. Van Buren St., Chicago 7, Ill.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., 2435 N. Naomi St., Burbank, Calif. ADV. PG. 579.
North Electric Co., 553 S. Market St., Galion, Ohio.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
Telephonics Corp., Park Ave., Huntington, N. Y.

TELEVISION MASKS

See MASKS—Television

TELEVISION PROJECTION SCREENS

See SCREENS—Television Projection

TELEVISION SYSTEMS—Industrial

Ampli-Vision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif.
Blander-Tongue Laboratories, Inc., 9-25 Ailing St., Newark 2, N. J.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Cinema-Television, Ltd., Worsley Bridge Rd., London SE 26, England.
Community Engineering Corp., Box 824, State College, Pa.
Dage Television Div. of Thompson Products, Inc., W. 10th St., Michigan City, Ind.
Diamond Power Specialty Corp., Electronics Dept., Lancaster, Ohio.
DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
Farnsworth Electronics Div. of IT&T, 3700 E. Pontiac St., Fort Wayne, Ind.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. Y.
General Cybernetics Corp., 1751 N. Coronada St., Los Angeles 26, Calif.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
General Precision Laboratory Inc., 63 Bedford Rd., Pleasantville, N. Y.

Hallamore Electronics Co., 8352 Brookhurst Ave., Anaheim, Calif.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. ADV. PG. 574.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

TEMPERATURE

See INDICATORS

TENSIONS—Coil Winding

Oaktron Electric Co., Tinley Park, Ill.
Rollan Electric Co., 8233 S. Princeton Ave., Chicago 20, Ill.
Universal Winding Co., P. O. Box 1605, Providence, R. I.

TERMINAL BLOCKS

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
Aerolite Electronics Corp., 507 26th St., Union City, N. J.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
Amatom Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfgs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
Applied Resins Corp., 304 Oraton St., Newark 4, N. J.
Armel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y.
Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
British Electronics Sales Co., Inc., Oakland Garden Station, Flushing 64, N. Y.
Buchanan Electrical Products Corp., 223 U. S. Route 22, Hillside, N. J.
BURNDY CORPORATION, Norwalk, Conn. ADV. PG. 441.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.
COLLECTRON CORP., 304 E. 45th St., New York 17, N. Y. ADV. PG. 557.
Continental Connector Corp., 34-63 56th St., Woodside 77, N. Y.
CONTINENTAL-DIAMOND FIBRE CORP., Newark 100, Delaware. ADV. PG. 345-348.
Curtis Development & Mfg. Co., 3226 N. 33rd St., Milwaukee 16, Wis.
DeJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
EnRo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Exceller Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.
Fisher & Crome, 107 N. Camac St., Philadelphia 7, Pa.
Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Globe Electrical Mfg. Co., 1729 W. 134th St., Gardena, Calif.
Graphik-Circuits Div. of Cinch Mfg. Corp., 200 S. Turnbull Canyon Rd., La Puente, Calif.
Helipot Corp., Newport Beach, Calif.
Ilisco Corporation, Cincinnati 27, Ohio.
Industrial Engravers, Inc., 2212 McDonald Ave., Brooklyn 23, N. Y.
JONES DIV. HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
Kolton Electric Mfg. Co., 123 New Jersey Railroad Ave., Newark 5, N. J.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 685.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Luzerne Rubber Co., Muirhead Ave., Trenton, N. J.

Marathon Electric Mfg. Corp., Randolph & Cherry Sts., Wausau, Wis.
Mica Insulator Co., Schenectady 1, N. Y.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Molding Corp. of America, 40 Church St., Pawtucket, R. I.
Molix Products Co., 9515 Southview Ave., Brookfield, Ill.
NATIONAL TEL-TRONICS CORP., 35 St. Casimirs Ave., Yonkers, N. Y. ADV. PG. 642.
Olympic Plastics Co., Inc., 3471 S. LaCienega Blvd., Los Angeles 16, Calif.
Panelyte Div., St. Regis Paper Corp., 261 Madison Ave., New York 16, N. Y.
Permonite Mfg. Co., 444 N. Lake Shore Dr., Chicago 11, Ill.
Pfefer Products, 3901 W. 54th St., Los Angeles, Calif.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
RICHARDSON CO., 2767 Lake St., Melrose Park, Ill. ADV. PG. 530.
Roffan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
Shaw Insulator Co., 160 Coit St., Irvington 11, N. J.
Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
Smith Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
States Co., 19 New Park Ave., Hartford 6, Conn.
Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.

TERMINAL BOARDS

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
Aerolite Electronics Corp., 507 26th St., Union City, N. J.
Aeronautical Electric Co., 5656 Northwest Highway, Chicago 30, Ill.
AIRCRAFT RATIO CORP., Boonton, N. J. ADV. PG. 495.
Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 567.
ALLIED ALLEGRI INC., 141 River Rd., Nutley, N. J. ADV. PG. 650.
Amatom Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfgs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
Armel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y.
ATLAS E-E CORP., 47 Prospect St., Woburn, Mass. ADV. PG. 562.
Atlee Corp., 47 Prospect St., Woburn, Mass.
Avionex Electronics Corp., 10855 Vanover, North Hollywood, Calif.
Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
British Electronics Sales Co., Inc., Oakland Garden Station, Flushing 64, N. Y.
Buchanan Electrical Products Corp., 223 U. S. Route 22, Hillside, N. J.
BUREAU OF ENGRAVING, INC., INDUSTRIAL DIV., 500 S. Fourth St., Minneapolis 15, Minn. ADV. PG. 633.
Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.
COLLECTRON CORP., 304 E. 45th St., New York 17, N. Y. ADV. PG. 557.
Continental Connector Corp., 34-63 56th St., Woodside 77, N. Y.
CONTINENTAL-DIAMOND FIBRE CORP., Newark 100, Delaware. ADV. PG. 345-348.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
Decatur Electronics Industries Corp., 203 Ornlco Drive, Brightwater, N. Y.
DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. ADV. PG. 638.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.

Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Excell Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.
 Fisher & Crome, 107 N. Camac St., Philadelphia 7, Pa.
 Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.
 Globe Electrical Mfg. Co., 1729 W. 134th St., Gardena, Calif.
 Graphik-Circuits Div. of Cinch Mfg. Corp., 200 S. Turnbull Canyon Rd., La Puente, Calif.
GREAT EASTERN METAL PRODUCTS CO., 22 Woodworth Ave., Yonkers, N.Y. ADV. PG. 696.
 Industrial Engravers, Inc., 2212 McDonald Ave., Brooklyn 23, N. Y.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 693.
 Isolantite Manufacturing Corp., Stirling, N. J.
 Johnes Plastics Corp., 213 Shepherd Ave., Brooklyn 8, N. Y.
 Jones-Manville, 22 E. 40th St., New York 16, N. Y.
JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 685.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 664.
 Litton Industries, Beverly Hills, Calif.
 Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif.
 Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Meridian, Inc., 880 Main St., Stamford, Conn.
 Mica Insulator Co., Schenectady 1, N. Y.
 Micarta Fabricators, Inc., 5412 N. Clark, Chicago 40, Ill.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Molding Corporation of America, 40 Church St., Pawtucket, R. I.
 Molex Products Co., 9515 Southview Ave., Brookfield, Ill.
NATIONAL TEL-TRONICS CORP., 35 St. Casimir Ave., Yonkers, N. Y. ADV. PG. 642.
 Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.
 Olympic Plastics Co., Inc., 3471 S. La Cienega Blvd., Los Angeles 16, Calif.
 Panelyte Div., St. Regis Paper Corp., 261 Madison Ave., New York 16, N. Y.
 Permonite Mfg. Co., 444 N. Lake Shore Dr., Chicago 11, Ill.
 Pfefer Products, 3901 W. 54th St., Los Angeles, Calif.
 Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
 Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 530.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Rogers Corp., Goodyear, Conn.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
 Shaw Insulator Co., 160 Colt St., Irvington 11, N. J.
 Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
 Smith Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
 States Co., 19 New Park Ave., Hartford 6, Conn.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.
 Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
 Taylor Fibre Co., Norristown, Pa.
 Techniques, Inc., 52 Jackson Ave., Hackensack, N. J.
 Tingstol Co., 1461 W. Grand Ave., Chicago 22, Ill.
 Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.

U. S. Engineering Co., Div. of Litton Industries, 5873 Rodeo Rd., Los Angeles 18, Calif.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
 Vitroreal Corp., The, 709 E. 106th St., Box 6048, Indianapolis 20, Ind.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Warren Plastics Corp., Warren, Pa.

TERMINAL STRIPS

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Aeronautical Electric Co., 5656 Northwest Highway, Chicago 30, Ill.
 Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
 Amatam Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
ANTON ELECTRONIC LABS, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
 Arnel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
BIRNBACH RADIO CO., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Buchanan Electrical Products Corp., 223 U. S. Route 22, Hillside, N. J.
BURNDY CORPORATION, Norwalk, Conn. ADV. PG. 441.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589.
CONTINENTAL DIAMOND FIBRE CORP., Newark 100, Delaware. ADV. PG. 345-348.
DEJUR-AMSCO CORP., Northern Blvd at 45th St., Long Island City 1, N. Y. ADV. PG. 237-239.
 Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa.
ELECTRICAL INSULATION CO., INC., 1245 Marcom Blvd., Copiague, N. Y. ADV. PG. 699.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Excell Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
 Fisher & Crome, 107 N. Camac St., Philadelphia 7, Pa.
 Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.
 Globe Electrical Mfg. Co., 1729 W. 134th St., Gardena, Calif.
 Graphik-Circuits Div. of Cinch Mfg. Corp., 200 S. Turnbull Canyon Rd., La Puente, Calif.
HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 409.
 I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
 Industrial Engravers, Inc., 2212 McDonald Ave., Brooklyn 23, N. Y.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 693.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irwin Products, 6312 N. Artesian Ave., Chicago 45, Ill.
JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
KULKA ELECTRIC CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 685.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 664.
 Litton Industries, Beverly Hills, Calif.
 Luzerne Rubber Co., Mulrhead Ave., Trenton, N. J.
 Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.
 Meridian, Inc., 880 Main St., Stamford, Conn.
 Mica Insulator Co., Schenectady 1, N. Y.

Micarta Fabricators, Inc., 5412 N. Clark, Chicago 40, Ill.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Molding Corporation of America, 40 Church St., Pawtucket, R. I.
 Molex Products Co., 9515 Southview Ave., Brookfield, Ill.
 National Fabricated Products Div. of Hoffman Electronics Corp., 2650 W. Belden Ave., Chicago 47, Ill.
NATIONAL TEL-TRONICS CORP., 35 St. Casimir Ave., Yonkers, N. Y. ADV. PG. 642.
 North Electric Co., 553 S. Market St., Gallon, Ohio.
 Northern Industrial Chemical Co., 7-11 Elkin St., South Boston 27, Mass.
 Olympic Plastics Co., Inc., 3471 S. La Cienega Blvd., Los Angeles 16, Calif.
 Panelyte Div., St. Regis Paper Co., 261 Madison Ave., New York 16, N. Y.
 Permonite Mfg. Co., 444 N. Lake Shore Dr., Chicago 11, Ill.
 Pfefer Products, 3901 W. 54th St., Los Angeles, Calif.
REEVES INSTRUMENT CORP., 227 E. 91st St., New York 28, N. Y. ADV. PG. 437.
 Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 530.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
 Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
 Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
 Sinclair Mfg. Co., Chertley, Mass.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 States Co., 19 New Park Ave., Hartford 6, Conn.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 598.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
 Taylor Fibre Co., Norristown, Pa.
 Techniques, Inc., 52 Jackson Ave., Hackensack, N. J.
 Tingstol Co., 1461 W. Grand Ave., Chicago 22, Ill.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405.
 Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
VECTOR ELECTRONICS CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 476.
 Vitroreal Corp., The, 709 E. 106th St., Box 6048, Indianapolis 20, Ind.
 Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Warren Plastics Corp., Warren, Pa.
WESTLINE PRODUCTS DIV. OF WESTERN LITHOGRAPH CO., 600 E. Second St., Los Angeles 54, Calif. ADV. PG. 470.
 Whitaker Cable Corp., Kansas City 16, Mo.

TERMINALS

(h) Indicates hermetically sealed types.

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
 Advanced Vacuum Products, Inc., Div. of General Ceramics Corp., 122 Liberty St., Stamford, Conn.
 Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 567.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
ALLIED ALLEGRI INC., 141 River Rd., Nutley, N. J. ADV. PG. 650.
 Amatam Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
 American Brass Co., 414 Meadow St., Waterbury 20, Conn. (h)
AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
ANTON ELECTRONIC LABS, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691. (h)
 Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
 Arnel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y.
 Atlee Corp., 47 Prospect St., Woburn, Mass.
 BG Corp., The, 321 Broad Ave., Ridgefield, N. J. (h)
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 615.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.

Brilhant Plastics Corp., Old Country Rd., Mineola, N. Y. (h)
 British Electronics Sales Co., Inc., Oakland Garden Station, Flushing 64, N. Y. (b)
 Buchanan Electrical Products Corp., 223 U. S. Route 22, Hillside, N. J.
BURNDY CORPORATION, Norwalk, Conn. ADV. PG. 441.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
 Ceramaseal Co., The, Box 25, New Lebanon Center, N. Y. (h)
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
CONSTANTIN & CO., L. L., Route #46, Lodi, N. J. ADV. PG. 377.
 Continental Connector Corp., 34-63 56th St., Woodside 77, N. Y.
 Dante Electric Mfg. Co., Bantam, Conn.
 Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa.
ELECTRICAL INDUSTRIES DIV., PHILIPS ELECTRONICS, INC., 691 Central Ave., Murray Hill, N. J. ADV. PG. 315.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J. (h)
ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
 Exceller Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.
 Farnsworth Electronic Co., Pacific Div., 815 S. San Antonio Rd., Palo Alto, Calif. (h)
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
 Frenchtown Porcelain Co., Trenton 9, N. J. (h)
FUSITE CORP., 6000 Fernview Ave., Cincinnati 13, Ohio. ADV. PG. 413.
 Garde Mfg. Co., 588 Eddy St., Providence 3, R. I. (h)
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 28.
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
 Glassteel Products Co., Inc., 1111 E. Elizabeth Ave., Linden, N. J. (h)
 Globe Electrical Mfg. Co., 1729 W. 134th St., Gardena, Calif. (h)
 Goe Engineering Co., 219 S. Mednik Ave., Los Angeles 22, Calif.
HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 409.
 Helder Mfg. Corp., 238 Lewis St., Paterson, N. J. (h)
 Hermaesal Co., Inc., 1101 Lafayette St., Elkhart, Ind. (h)
 Hermetite Corp., 702 Beacon St., Boston 15, Mass. (h)
HERMETIC SEAL CORP., 29-37 S. Sixth St., Newark 7, N. J. ADV. PG. 325.
 Hobson Brothers, 4940 W. Lawrence Ave., Chicago 30, Ill.
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
 Isco Corporation, Cincinnati 27, Ohio.
INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192. (h)
 Ippolito & Co., Inc., James, 401 Concord Ave., Bronx 54, N. Y.
 Irwin Products, 6312 N. Artesian Ave., Chicago 45, Ill.
 Janco Corp., 3111 Winona Ave., Burbank, Calif.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 685.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 664.
 Litton Industries, Beverly Hills, Calif.
 Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif.
 Lundey Associates, 694 Main St., Waltham 54, Mass. (h)
MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. ADV. PG. 252.
 Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.
MANSOL CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 697.
 Marshall Associates, Inc., John, Box 2463, Bridgeport 8, Conn.
 Metron Corp., 8 Coryell St., Lambertville, N. J.
 Micarta Fabricators, Inc., 5412 N. Clark, Chicago 40, Ill.
 Miller Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Mitronics, Inc., 1290 Central Ave., Hillside, N. J. (h)
 Molding Corp. of America, 40 Church St., Pawtucket, R. I. (h)
 Molex Products Co., 9515 Southview Ave., Brookfield, Ill.
 Morse Co., Frank W., 1300 Soldiers Field Rd., Boston 35, Mass.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 642.
 Neosil Products Div. of Rubber Associates, Inc., 745 Fifth Ave., New York 22, N. Y. (h)
 North Electric Co., 553 S. Market St., Galion, Ohio.
PATTON-MACGUYER CO., 17 Virginia Ave., Providence 5, R. I. ADV. PG. 590.
 Permonite Mfg. Co., 444 N. Lake Shore Dr., Chicago 11, Ill.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 670.
 Precise Instrument Parts Co., 4520 San Fernando Rd., Glendale 4, Calif.

Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.
 Quality Products Co., 387 Charles St., Providence 4, R. I. (h)
 Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass. (h)
RAYHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249. (h)
 Robco Mfg. Co., 225 W. Main St., Patchogue, N. Y. (h)
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
SEALCTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 484.
 Shakeproof Div. of Illinois Tool Works, St. Charles Rd., Elgin, Ill.
 Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
 Sheffco Mfg. Co., Grand & Ruby Aves., Palisades Park, N. J.
 Sherman Mfg. Co., H. B., 22 Barney St., Battle Creek, Mich.
 Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill.
 Sinclair Mfg. Co., Chartley, Mass.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
SPHERE CO., INC., THE, 25 Amity St., Little Falls, N. J. ADV. PG. 652.
 Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brooklyn 5, N. Y.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill. (h)
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 108, 109.
 Thomas & Betts Co., Inc., 36 Butler St., Elizabeth 1, N. J.
 Thompson-Bremer & Co., 520 N. Dearborn, Chicago 10, Ill.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405.
 Tri-Point Plastics, Inc., 177 I.U. Willets Rd., Albertson, N. Y.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 U. S. Engineering Co., Div. of Litton Industries, 5873 Rodeo Rd., Los Angeles 18, Calif.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 476.
 Vitroscop Corp., The, 709 E. 106th St., Box 6048, Indianapolis 20, Ind. (h)
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 103.
 Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Walco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
 Warren Plastics Corp., Warren, Pa.
 Waterbury Companies, Inc., Waterbury 20, Conn.
 Wheaton Co., T. G., Millville, N. J. (h)
 Whitaker Cable Corp., Kansas City 16, Mo.
WHITSO, INC., 9328 Byron St., Schiller Park, Ill. ADV. PG. 637.
 Winchester Electronics, Inc., Willard Rd., Norwalk, Conn.
ZIERICK MFG. CORP., Beechwood & Rockdale Aves., New Rochelle, N. Y. ADV. PG. 605.

TERMINALS—Miniature & Subminiature M—Miniature . . . S—Subminiature

Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill. M-S
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 567. M
ALLIED ALLEGRI, INC., 141 River Rd., Nutley, N. J. ADV. PG. 650. M-S
 Amatone Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y. M
 Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass. M-S
 Arnel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y. M-S
 Atlee Corp., 47 Prospect St., Woburn, Mass. S
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 615. M
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn. M-S
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501. M-S
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150. M-S
 Ceramaseal Co., The, Box 25, New Lebanon Center, N. Y. M
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638. M-S
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600. M-S
 Continental Connector Corp., 34-63 56th St., Woodside 77, N. Y. M-S
ELECTRICAL INDUSTRIES DIV., PHILIPS ELECTRONICS, INC., 691 Central Ave., Murray Hill, N. J. ADV. PG. 315. S
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J. M-S
ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171. M

Farnsworth Electronic Co., Pacific Div., 815 S. San Antonio Rd., Palo Alto, Calif. M
 Garde Mfg. Co., 588 Eddy St., Providence 3, R. I. M-S
GENERAL COMPONENTS INC., 225-229 E. 144th St., New York 51, N. Y. ADV. PG. 696. M-S
 Globe Electrical Mfg. Co., 1729 W. 134th St., Gardena, Calif. M-S
 Goe Engineering Co., 219 S. Mednik Ave., Los Angeles 22, Calif. M
HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 409. M-S
 Hermetite Corp., 702 Beacon St., Boston 15, Mass. M-S
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill. M
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675. M
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 664. M-S
 Litton Industries, Beverly Hills, Calif. M
 Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif. M
 Lundey Associates, 694 Main St., Waltham 54, Mass. M
MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. ADV. PG. 252. M-S
 Metron Corp., 8 Coryell St., Lambertville, N. J. S
 Mitronics, Inc., 1290 Central Ave., Hillside, N. J. M
 Molding Corporation of America, 40 Church St., Pawtucket, R. I. M-S
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 642. M-S
PAINTON DIV. OF BRITISH ELECTRONICS SALES CO., INC., Oakland Garden Sta., Flushing 64, N. Y. ADV. PG. 601. M
 Permonite Mfg. Co., 444 N. Lake Shore Dr., Chicago 11, Ill. M
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 670. M-S
 Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass. M
 Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass. M
RAYHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249. M
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643. M
SEALCTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 484. M-S
 Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif. S
 Sheffco Mfg. Co., Grand & Ruby Aves., Palisades Park, N. J. M
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y. M-S
SPHERE CO., INC., THE, 25 Amity St., Little Falls, N. J. ADV. PG. 652. M-S
 Thomas & Betts Co., Inc., 36 Butler St., Elizabeth 1, N. J. M
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603. M
 Tri-Point Plastics, Inc., 177 I.U. Willets Rd., Albertson, N. Y. M-S
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y. S
 U. S. Engineering Co., Div. of Litton Industries, 5873 Rodeo Rd., Los Angeles 18, Calif. M-S
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635. M-S
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 103. M-S
WHITSO, INC., 9328 Byron St., Schiller Park, Ill. ADV. PG. 637. M-S
 Winchester Electronics, Inc., Willard Rd., Norwalk, Conn. M
ZIERICK MFG. CORP., Beechwood & Rockdale Aves., New Rochelle, N. Y. ADV. PG. 605. M

TERMINALS—Solderless

American Pamcor, Inc., Havertown, Pa.
AMP INC., 2100 Paxton St., Harrisburg, Pa. ADV. PG. 339.
 Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
 Berg Mfg. Corp., 142 Reno Ave., New Cumberland, Pa.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Buchanan Electrical Products Corp., 223 U. S. Route 22, Hillside, N. J.
BURNDY CORPORATION, Norwalk, Conn. ADV. PG. 441.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
 Dante Electric Mfg. Co., Bantam, Conn.
ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
 Goe Engineering Co., 219 S. Mednik Ave., Los Angeles 22, Calif.
HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 409.
HOLLINGSWORTH CO. SOLDERLESS TERMINAL DIV., Box 430, Phoenixville, Pa. ADV. PG. 630.
 Isco Corp., Cincinnati 27, Ohio.
 Javex, P. O. Box 646, Redlands, Calif.
 Johnson Co., E. F., Waseca, Minn.
 Kolton Electric Mfg. Co., 123 New Jersey Railroad Ave., Newark 5, N. J.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 664.
 Litton Industries, Beverly Hills, Calif.

MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. ADV. PG. 252.
Molding Corp. of America, 40 Church St., Pawtucket, R. I.
Molex Products Co., 9515 Southview Ave., Brookfield, Ill.
NATIONAL TEL-TRONICS CORP., 35 St. Casimirs Ave., Yonkers, N. Y. ADV. PG. 642.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
PATTON-MAC GUYER CO., 17 Virginia Ave., Providence 5, R. I. ADV. PG. 590.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 670.
Sherman Mfg. Co., H. B., 22 Barney St., Battle Creek, Mich.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Thomas & Betts Co., 36 Butler St., Elizabeth 1, N. J.
Trumbull Components Dept., General Electric Co., 41 Woodford Ave., Plainville, Conn.
Vaco Products Co., 317 E. Ontario St., Chicago 11, Ill.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 476.
Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
Whitaker Cable Corp., Kansas City 16, Mo.
Winchester Electronics, Inc., Willard Rd., Norwalk, Conn.

TERMINATIONS—Microwave See MICROWAVE ACCESSORIES

TERMINATIONS for VHF, Video & Pulse Work

Admittance-Namco Corp., Farmingdale, N. Y.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 278.
COAXIAL CONNECTOR CO., INC., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 600.
Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y.
Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
Holland Electronics, 40 Greant Jones St., New York 12, N. Y.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
NECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 42.

TEST CHAMBERS See CHAMBERS—Test

TEST EQUIPMENT—Environmental

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
Aireco, Inc., 2323 Second Ave., Carman, Schenectady 3, N. Y.
American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
American Research Corp., Route 6 & New Britain Ave., Farmington, Conn.
ASSOCIATED TESTING LABORATORIES, INC., 407 Clinton Rd., Caldwell, N. J. ADV. PG. 627.
Atmosphere Control Co., Inc., 5315 Chester Ave., Philadelphia 43, Pa.
Bernco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.
Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.
Bowser Technical Refrigeration Div., Bowser, Inc., Eagle St., Terryville, Conn.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
CALIDYNE CO., THE, 120 Cross St., Winchester, Mass. ADV. PG. 472.
Century Engineers, Inc., Burbank, Calif.
CONRAD, INC., 141 Jefferson St., Holland, Mich. ADV. PG. 395.
Controlled Atmosphere Enclosures Corp., 230-11 141st Ave., Springfield Gardens 13, N. Y.
DEVELOPMENT ENGINEERING CO., 9 Cross St., Norwalk, Conn. ADV. PG. 500.
ENVIRONMENTAL EQUIPMENT CORP., 371 Linden St., Brooklyn 27, N. Y. ADV. PG. 600.
Hicks Corp., The, 1671 Hyde Park Ave., Hyde Park, Mass.
Hieatt Engineering Co., 2228 N. Hollywood Way, Burbank, Calif.
Hudson Bay Co., Div. of Labline Inc., 3070 W. Grand Ave., Chicago 22, Ill.
International Radiant Corp., 4 Manhasset Ave., Port Washington, N. Y.

Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
Litton Industries, Beverly Hills, Calif.
MB MFG. DIV. OF TETRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 552.
Mantec, Inc., 126 Maryland St., El Segundo, Calif.
Midwestern Instruments, 41 & Sheridan Rd., Tulsa, Okla.
MURPHY & MILLER, INC., 1322 S. Michigan Ave., Chicago 5, Ill. ADV. PG. 677.
North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
STANDARD CABINET CO., 57 Washington Ave., Carlstadt, N. J. ADV. PG. 642.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TENNEY ENGINEERING INC., 1090 Springfield Rd., Union, N. J. ADV. PG. 422.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
TROP-ARCTIC, INC., P. O. Box 334, Mishawaka, Ind. ADV. PG. 628.
Webber Corp., P. O. Box 217, Indianapolis 6, Ind.
Whittington Pump & Engineering Corp., 1126 Prospect St., Indianapolis 3, Ind.

TEST LEADS See LEADS—Test

TESTERS See Also INDICATORS METERS

TESTERS—Amplitude Linearity

Darco Industries, Inc., Gyro Dynamics Div., 2151 E. Rosecrans Ave., El Segundo, Calif.
Devtron Engineering, 1 Winslow St., Redwood City, Calif.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.

TESTERS—Automatic Tube

B & K Mfg. Co., 3726 N. Southport Ave., Chicago 13, Ill.
BRIGGS ASSOCIATES INC., 10 DeKalb St., Norristown, Pa. ADV. PG. 286.
Cinema-Television, Ltd., Worsley Bridge Rd., London S. E. 26, England.
Hunter-Bristol Corp., Bristol, Pa.
International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 560.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Research Electronics Laboratories, Roslyn, Pa.
Teletest Instrument Corp., 136-10 31st Rd., Flushing 54, N. Y.
Topatron, Inc., 942 E. Ojai Ave., Ojai, Calif.
Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
Wright Equipment Co., 128 N. Main St., Milltown, N. J.

TESTERS—Battery

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
Bright Star Industries, 600 Getty Ave., Clifton, N. J.
CHRISTIE ELECTRIC CORP., 3410 W. 67th St., Los Angeles 43, Calif. ADV. PG. 528.
Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
Fox Products Co., 4720 N. 18th St., Philadelphia 41, Pa.
Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.
Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.
Measurement Engineering Ltd., Arnprior, Ontario, Canada.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
Rectifier Engineering Co., Inc., 1803 E. Seventh St., Los Angeles 21, Calif.
Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
Willard Storage Battery Div. of The Electric Storage Battery Co., 246-286 E. 131st St., Cleveland 1, Ohio.

TESTERS—Capacitor

BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 159.

BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
Cinema-Television, Ltd., Worsley Bridge Rd., London S. E. 26, England.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves, Morristown, N. J. ADV. PG. 632.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
Dubrow Development Co., 235B Penn St., Burlington, N. J.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316-317.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Hunter-Bristol Corp., Bristol, Pa.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.
Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.
Liquidometer Corp., The, Skillman Ave. at 36th St., Long Island City 1, N. Y.
Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind.
Pennsylvania Testing Lab., Inc., Boyerstown, Pa.
Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
Service Instruments Corp., 171 Official Rd., Addison, Ill.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
Teletest Instrument Corp., 136-10 31st Rd., Flushing 54, N. Y.

TESTERS—Cathode Ray Tube

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves, Morristown, N. J. ADV. PG. 632.
DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
Research Electronics Laboratories, Roslyn, Pa.
Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
Wright Equipment Co., 128 N. Main St., Milltown, N. J.

TESTERS—Circuit

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.
Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
B & K Mfg. Co., 3726 N. Southport Ave., Chicago 13, Ill.
Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
Bliss Electronic Corp., Box 366, Sussex, N. J.
Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
California Technical Industries, 1421 Old County Rd., Belmont, Calif.
Century Engineers, Inc., Burbank, Calif.
Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
Craft Laboratories, P. O. Box 606, Westfield, N. J.
Dit-Mco, Inc., Electronics Div., 911 Broadway, Kansas City 5, Mo.
Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza S., Long Island City, N. Y.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
Hallamore Electronics Co., 8352 Brookhurst Ave., Anaheim, Calif.

Hunter-Bristol Corp., Bristol, Pa.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Syracuse, Ill.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
 Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill.
 King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
 Lee Electronics Labs., 88 Evans St., Watertown, Mass.
 Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Precise Development Corp., 2 Nell Court, Oceanside, N. Y.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, Calif.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Seco Mfg. Co., 5015 Penn Ave., S., Minneapolis, Minn.
 Service Instruments Corp., 171 Official Rd., Addison, Ill.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
 Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
 Sittler Corp., 18 N. Ada St., Chicago 7, Ill.
 Sorensen Industrial Electronic Co., Route 10, Dover, N. J.
 Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
 Topatron, Inc., 942 E. Ojai Ave., Ojai, Calif.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.

TESTERS—Coating Thickness

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 427.
 Gardner Lab., Inc., 4723 Elm St., Bethesda 14, Md.
 Research Electronics Laboratories, Roslyn, Pa.
 Unit Process Assemblies, Inc., 61 E. 4th St., New York 3, N. Y.

TESTERS—Color Infra Red

Gardner Lab., Inc., 4723 Elm St., Bethesda 14, Md.
 Haller, Raymond & Brown, Inc., State College, Pa.
PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.
 Production Research Corp., Thornwood, N. Y.

TESTERS—Continuity

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 491.
 Bernco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.
 Bright Star Industries, 600 Getty Ave., Clifton, N. J.
 California Technical Industries, 1421 Old County Rd., Belmont, Calif.
 Century Engineers, Inc., Burbank, Calif.
 Color Television Inc., 973 E. San Carlos Ave., San Carlos, Calif.
 Dante Electric Mfg. Co., Bantam, Conn.
 Dit-Mco, Inc., Electronics Div., 911 Broadway, Kansas City 5, Mo.
ELECTRONICS, INC., 39 York Rd., Willow Grove, Pa. ADV. PG. 286.
 First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
 Hunter-Bristol Corp., Bristol, Pa.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Syracuse, Ill.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
 Lee Electronics Labs, Inc., 88 Evans St., Watertown, Mass.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Seco Mfg. Co., 5015 Penn Ave., S., Minneapolis, Minn.
 Service Instruments Corp., 171 Official Rd., Addison, Ill.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.

SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

TESTERS—Crystal Testing

AIRBORNE INSTRUMENTS LABS., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
DUNN ENGINEERING ASSOCIATES, INC., 186 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 695.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
 Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 555.
TECHNITROL ENGINEERING CO., 1952 E. Allegheny Ave., Philadelphia 34, Pa. ADV. PG. 542.
 Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
 United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.

TESTERS—Distortion

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEATH CO., A. SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Towaco Electronics, Pine Brook Rd., Towaco, N. J.
 Warren Mfg. Co., Inc., The, Newtown Rd., Littleton, Mass.

TESTERS—Induction

Pennsylvania Testing Lab., Inc., Doylestown, Pa.

TESTERS—Insulation

Airmec Ltd., High Wycombe, Buckinghamshire, England.
ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 570.
BETA ELECTRIC DIV. OF SORENSEN CO., INC., 333 E. 103rd St., New York 23, N. Y. ADV. PG. 155, 156.
 Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
 Bliss Electronic Corp., Box 366, Sussex, N. J.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
 Central Research Laboratories, Inc., Red Wing, Minn.
 Dit-Mco, Inc., Electronics Div., 911 Broadway, Kansas City 5, Mo.
 Eastern Specialty Co., Philadelphia 40, Pa.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455.
 Janco Corp., 3111 Winona Ave., Burbank, Calif.
 Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.
 Liquidometer Corp., The, Skillman Ave. at 36th St., Long Island City 1, N. Y.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
 Nelson Instrument Co., 607 Howard St., Evanston, Ill.
OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 650.
 Parameters, Inc., 195 Herricks Rd., New Hyde Park, N. Y.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
SLAUGHTER COMPANY, Piqua 9, Ohio. ADV. PG. 494.

STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
 Takk Corp., The, Box 346, Newark, Ohio.
TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.

TESTERS—Insulation Breakdown

Advanced Electronics, Inc., 94 Silas Deane Highway, Rocky Hill, Conn.
 Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Amthor Testing Instrument Co., 45-53 Van Sinderen Ave., Brooklyn 7, N. Y.
ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 570.
BETA ELECTRIC DIV. OF SORENSEN CO., INC., 333 E. 103rd St., New York 23, N. Y. ADV. PG. 155, 156.
 Bernco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.
 Bliss Electronic Corp., Box 366, Sussex, N. J.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
 Embassy Engineering Corp., 673 Elton Ave., New York 51, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne, Valley Stream, N. Y. ADV. PG. 679.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 650.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 101.
SLAUGHTER COMPANY, Piqua 9, Ohio. ADV. PG. 494.
SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 230, 231.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.

TESTERS—Meter

Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Booth Co., Arthur E., 265 S. Alexandria Ave., Los Angeles, Calif.
 Dubrow Development Co., 235B Penn St., Burlington, N. J.
 Eastern Specialty Co., Philadelphia 40, Pa.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
 Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 555.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
 Rockwell Engineering Co., 2125 E. 45th St., Indianapolis 5, Ind.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
 Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

TESTERS—Microwave Testing Equipment

See MICROWAVE ACCESSORIES

TESTERS—Moisture Detection, Electronic

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
 Delmhorst Instrument Co., 601 Cedar St., Boonton, N. J.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Moisture Register Co., 1510 W. Chestnut St., Alhambra, Calif.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.

Photo Crystals Inc., 15 S. First St., Geneva, Ill.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

TESTERS—Multitestors

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
Bergen Laboratories, 247 Crooks Ave., Clifton, N. J. British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill.
Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
Precision Development Corp., 2 Neil Court, Oceanside, N. Y.
Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, Calif.
Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

TESTERS—Phaotron

See ANALYZERS—Thyratron or Phaotron

TESTERS—Radar

BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Norristown, N. J. ADV. PG. 632.
KEARFOTT CO., INC. WESTERN DIV., 14844 Oxnard St., Van Nuys, Calif. ADV. PG. 182.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
Research Electronics Laboratories, Roslyn, Pa.

TESTERS—Synchro Error

EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. ADV. PG. 584.
GRAY INSTRUMENT CO., 200 E. Church Lane, Philadelphia 44, Pa. ADV. PG. 643.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 676.
Julie Research Laboratories, 556 W. 168th St., New York 32, N. Y.
KEARFOTT CO., INC. ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 181.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
Millitest Co., 88 Madison Ave., Hempstead, N. Y.
Muirhead & Co., Ltd., Beckenham, Kent, England.
Pennsylvania Testing Lab., Inc., Doylestown, Pa.
Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
Shasta Div. of Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif.
Theta Instrument Corp., 204 Market St., East Paterson, N. J.

TESTERS—Thyratron

See ANALYZERS—Thyratron or Phaotron

TESTERS—Transconductance Tube

Alpha Instrument Co., 43 Hempstead St., New London, Conn.
B & K Mfg. Co., 3726 Southport Ave., Chicago 13, Ill.
Eder Engineering Co., The, 219 E. Becher St., Milwaukee 2, Wis.
Electronic Measurements Corp., 280 Lafayette St., New York 12, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
Seco Mfg. Co., 5015 Penn Ave., S., Minneapolis, Minn.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
Teletest Instrument Corp., 136-10 31st Rd., Flushing 54, N. Y.

TESTERS—Transistor

Alco Electronics Mfg. Co., 3 Wolcott Ave., Lawrence, Mass.
B & K Mfg. Co., 3726 N. Southport Ave., Chicago 13, Ill.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
CG Electronics Div. of Gulton Industries, Inc., 305 Dallas St., N.E., Albuquerque, N. M.
Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 380, 381.
DUNN ENGINEERING ASSOCIATES, INC., 186 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 695.
Durson Co., Dept. A-1, 10416 National Blvd., Los Angeles 34, Calif.
Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
Fairchild Engine & Airplane Corp., Guided Missiles Div., Wyandanch, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
GENERAL TRANSISTOR CORP., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 243.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
INSTANT CIRCUITS DIV. OF ALFRED W. BARBER LABS., 32-44 Francis Lewis Blvd., Flushing, N. Y. ADV. PG. 660.
Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 389.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 94.
Metronix, Inc., Mill Lane, Watford, Conn.
Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
OWEN LABORATORIES, INC., 55 Beacon Place, Pasadena, Calif. ADV. PG. 680.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.
Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Quantum Electronics, Inc., 2312 Wisconsin St. NE, Albuquerque, N. M.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
Ransom Research, Box 382, San Pedro, Calif.
Research Electronics Laboratories, Roslyn, Pa.
Service Instruments Co., 171 Official Rd., Addison, Ill.
SONEX, INC., 73 S. State Rd., Upper Darby, Pa. ADV. PG. 664.
Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
Trans-Alre Electronics, Inc., 195-02 Jamaica Ave., Hollis 23, N. Y.
Trans Electronics Inc., 7349 Canoga Ave., Canoga Park, Calif.
WALLSON ASSOCIATES, LTD., 963 Frelinghuysen Ave., Newark 5, N. Y. ADV. PG. 691.
Wright Equipment Co., 128 N. Main St., Milltown, N. J.

TESTERS—Vacuum Tube

Alpha Instrument Co., 43 Hempstead St., New London, Conn.
American Scientific Development Co., 334 S. Main St., Atkinson, Wis.
B & K Mfg. Co., 3726 Southport Ave., Chicago 13, Ill.
BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
Cinema-Television, Ltd., Worsley Bridge Rd., London S.E. 26, England.
Eder Engineering Co., The, 219 E. Becher St., Milwaukee 2, Wis.
Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
Electronic Measurements Corp., 280 Lafayette St., New York 12, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
New London Instrument Co., P. O. Box 189, New London, Conn.
Pennsylvania Testing Lab., Inc., Boylestown, Pa.

Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
Research Electronics Laboratories, Roslyn, Pa.
RHEEM ELECTRONICS DIVISION, 7777 Industry Ave., Rivera, Calif. ADV. PG. 654.
Seco Mfg. Co., 5015 Penn Ave., S., Minneapolis, Minn.
Simpson Electric Co. Div. American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
Sutter Electronics Co., P. O. Box 896, Palo Alto, Calif.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
Teletest Instrument Corp., 136-10 31st Rd., Flushing 54, N. Y.
Tricraft Products Corp., 1124 W. Newport Ave., Chicago 13, Ill.
WALLSON ASSOCIATES, LTD., 963 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 691.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
Wright Equipment Co., 128 N. Main St., Milltown, N. J.

TESTERS—Voltage

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 673.
ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 570.
Bliss Electronic Corp., Box 366, Sussex, N. J.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 562.
Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Holub Industries, Inc., 414 Dekalb Ave., Sycamore, Ill.
Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
Knopp, Inc., 4224 Holden St., Oakland 8, Calif.
MANSON LABORATORIES, INC., 207 Greenwich Ave., Stamford, Conn. ADV. PG. 513.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
Pameco, Mill Lane, Watford, Conn.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
Shasta Div. of Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif.
SHURITE METERS, INC., 35-B Hamilton St., New Haven 8, Conn. ADV. PG. 655.
Simpson Electric Co. Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
Sittler Corp., 18 N. Ada St., Chicago 7, Ill.
STICHT CO., INC. HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

THERMISTORS

See also CRYSTAL MOUNTS & MIXERS

FENWAL ELECTRONICS, INC., Ashland, Mass. ADV. PG. 624.
Friez Instrument Div., Bendix Aviation Corp., Baltimore 4, Md.
G-C ELECTRONICS MFG. CO., DIV. OF G-C TEXTRON INC., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
GENERAL ELECTRIC CO., MAGNETIC MATERIALS SECTION, 7780 Neff Rd., Edmore, Mich. ADV. PG. 16, 17.
GLOBAL DIV., CARBORUNDUM CO., Niagara Falls, N. Y. ADV. PG. 217.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
Keystone Carbon Co., Inc., St. Mary, Pa.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 184.
Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
Simpson Electric Co. Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.

Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London W.C. 2, England.
Victory Engineering Corp., 101 Springfield Rd., Union, N. J.
Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J.

THERMOCOUPLES

Aero Research Instrument Co., 315 N. Aberdeen St., Chicago 7, Ill.
ALLIED ALLEGRI, INC., 141 River Rd., Nutley, N. J. ADV. PG. 650.
American Thermo Electric Co., 7269 Santa Monica Blvd., Los Angeles 46, Calif.
ANTON ELECTRONIC LABS, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bernco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.
Bishop & Co., J., Platinum Works, Malvern, Pa.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 658, 659.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
FENWAL INCORPORATED, Ashland, Mass. ADV. PG. 371.
Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
Foxboro Co., The, Foxboro, Mass.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Gordon Co., Claud S., 3000 S. Wallace St., Chicago 16, Ill.
GRAY INSTRUMENT CO., 200 E. Church Lane, Philadelphia 44, Pa. ADV. PG. 643.
Hayes Inc., C. I., 800 Wellington Ave., Cranston, R. I.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 606.
Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Perkin-Elmer Corp., The, Main Ave., Norwalk, Conn.
PHYSICS RESEARCH LABS, INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682.
Precision Tube Co., Inc., North Wales, Pa.
Reeder & Co., Charles M., 173 Victor Ave., Detroit 3, Mich.
REVERE CORPORATION OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
Richards Co., Inc., Arklay S., 38 Winchester St., Newton Highlands 61, Mass.
Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
WESTERN GOLD & PLATINUM CO., 525 Harbor Blvd., Belmont, Calif. ADV. PG. 593.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

THERMOCOUPLES—Pyrometric

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 504, 505.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Foxboro Co., The, Foxboro, Mass.
Gordon Co., Claud S., 3000 S. Wallace St., Chicago 16, Ill.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 503.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 606.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Richards Co., Inc., Arklay S., 38 Winchester St., Newton Highlands 61, Mass.

Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.

THERMOCOUPLES—Vacuum Type

American Thermo Electric Co., 7269 Santa Monica Blvd., Los Angeles 46, Calif.
Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
Consolidated Electrodynamics Corp., Rochester Div., Rochester 3, N. Y.
Electronic Research Labs., 85 Surrey St., Brighton 35, Mass.
Field Electrical Instrument Co., 8 N. Manheim Blvd., New Paltz, N. Y.
High Vacuum Equipment Corp., 2 Churchill Rd., Hingham, Mass.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
Reeder & Co., Charles M., 173 Victor Ave., Detroit 3, Mich.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.
Vacuum Equipment Div. of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.
Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
WESTINGHOUSE ELECTRIC CORP., P.O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

THERMOMETERS—Resistance

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
Arnoux Corp., Box 34628, Los Angeles, Calif.
Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
Foxboro Co., The, Foxboro, Mass.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 606.
Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.
Minco Products, Inc., 740 Washington Ave. N., Minneapolis 1, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
Multicore Solders, Ltd., Multicore Works, Maylands Ave., Hemel Hempstead, Hertfordshire, England.
New England Scientific Instrument Co., Box 408, Cambridge 39, Mass.
Roller-Smith Corp., 1825 W. Market St., Bethlehem, Pa.
Ruge Associates, Inc., Arthur, 733 Concord Ave., Cambridge, Mass.
Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
TRANS-SONICS, INC., P.O. Box 328, Lexington 73, Mass. ADV. PG. 525.
United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
WESTINGHOUSE ELECTRIC CORP., P.O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

THERMOPILES

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 658, 659.
Eppley Lab., Inc., The, Newport, R. I.
Field Electrical Instrument Co., 8 N. Manheim Blvd., New Paltz, N. Y.
Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Reeder & Co., Charles M., 173 Victor Ave., Detroit 3, Mich.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
Williamson Development Co., Inc., 317 Main St., West Concord, Mass.

THERMOSTATS—Bimetal

BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Control Products, Inc., 306 Sussex St., Harrison, N. J.
Curtis Development & Mfg. Co., 3226 N. 33rd St., Milwaukee 16, Wis.
CURTIS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 144-146.
FENWAL INCORPORATED, Ashland, Mass. ADV. PG. 371.
G-V CONTROLS, INC., 20 Hollywood Plaza, East Orange, N. J. ADV. PG. 106.
GENERAL CONTROLS CO., Glendale 1, Calif. ADV. PG. 546.
Gleason-Avery Co., Auburn, N. Y.
HART MFG. CO., THE, 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
Mechanical Industries Production Co., 217 Ash St., Akron 8, Ohio.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Spencer Thermostat Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass.
STEVENS MFG. CO., INC., P. O. Annex 1007, Mansfield, Ohio. ADV. PG. 319.
Thermal-Devices Div. of Curtiss-Wright Corp., 631 Central Ave., Carlstadt, N. J.
ULANET CO., GEORGE, 413 Market St., Newark 5, N. J. ADV. PG. 547.
United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.
WILSON CO., THE, H. A., 2655 U.S. Hwy 22, Union, N. J. ADV. PG. 257.

THERMOSTATS—Electronic

See also CONTROLS—Temperature

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
FENWAL INCORPORATED, Ashland, Mass. ADV. PAGE 371.
HART MFG. CO., THE, 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 610.
Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Philadelphia Scientific Glass Co., Quakertown, Pa.
VECTROL ENGINEERING, INC., P.O. Box 1089, Stamford, Conn. ADV. PG. 632.
West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.
Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

THYRATRONS

See TUBES

TIMERS—Automatic Cycle

Aemco, Inc., 62 State St., Mankato, Minn.
Appliance Products, 520 Fifth Ave., New York 36, N. Y.
Automatic Timing & Controls, Inc., King of Prussia, Pa.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 430.
Birdsell Mfg. Co., Inc., 750 San Antonio Rd., Palo Alto, Calif.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Bristol Motor Division, Vocalline Company of America, Inc., Old Saybrook, Conn.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
Cramer Controls Corp., Box 13, Centerbrook, Conn.
DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.
Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
Eagle Signal Corp., Moline, Illinois.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Elasta Ltd., Bad Ragaz, Switzerland.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 546.
Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
Hagen Mfg. Co., 202 20th St., Moline, Ill.
HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury, Conn. ADV. PG. 531.
HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. ADV. PG. 157.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 506.
Ingram Co., E., Bristol, Conn.
International Register Co., 2620 Washington Blvd., Chicago 12, Ill.

ELECTRONIC and ALLIED PRODUCTS

TIMERS

Lektra Laboratories, 154 11th Ave., New York 3, N. Y.
Luminate Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.

Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.
Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.
Pantek Co., Box 212, El Segundo, Calif.

PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.

POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.

Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
Sessions Clock Co., Industrial Products Div., Forestville, Conn.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.

Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.

Tork Time Controls Inc., 32 Grove St., Mt. Vernon, N. Y.

Tracerlab, Inc., 1601 Trapelo Rd., Waltham 54, Mass.
Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.

Vemaline Products Co., P. O. Box 222 Hawthorne, N. J.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.

Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Automatic Interval

Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing 1, Mich.

Aemco, Inc., 62 State St., Mankato, Minn.

Appliance Products, 520 Fifth Ave., New York 36, N. Y.

Automatic Timing & Controls, Inc., King of Prussia, Pa.

Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.

BILL JACK SCIENTIFIC INSTRUMENT CO., P. O. Box C-3, Solana Beach, Calif.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

Bristol Motor Division, Vocaline Co. of America, Inc., Old Saybrook, Conn.

Cinema-Television, Ltd., Worsley Bridge Rd., London S.E. 26, England.

COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.

Cramer Controls Corp., Box 13, Centerbrook, Conn.

DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.

Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.

DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. ADV. PG. 638.

Dynapar Corp., 5150 Church St., Skokie, Ill.

Eagle Signal Corp., Moline, Ill.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

Elesta Ltd., Bad Ragaz, Switzerland.

Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 37, Ill.

Foxboro Co., The, Foxboro, Mass.

GENERAL ELECTRIC CO. APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

General Electric Co., Clock and Timer Dept., Ashland, Mass.

Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.

Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.

Hagen Mfg. Co., 202 20th St., Moline, Ill.

HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 531.

HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. ADV. PG. 157.

Hubbard Scientific Labs., Inc., 1292 E. Third St., Pomona, Calif.

Hupp Instru/Mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.

INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 506.

Ingraham Co., E., Bristol, Conn.

International Register Co., 2620 Washington Blvd., Chicago 12, Ill.

Lektra Laboratories, 154 11th Ave., New York 3, N. Y.

Luminate Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.

Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.

Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.

Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.

Pantek Co., Box 212, El Segundo, Calif.

PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.

Ransom Research, Box 382, San Pedro, Calif.

Reliance Automatic Lighting Co., 1919 Mead St., Racine, Wis.

Sessions Clock Co., Industrial Products Div., Forestville, Conn.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.

Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.

Tork Time Controls Inc., 32 Grove St., Mt. Vernon, N. Y.

Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.

Walser Automatic Timer Corp., Graybar Bldg., New York 17, N. Y.

Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Automatic Reset

Aemco, Inc., 62 State St., Mankato, Minn.

Automatic Timing & Controls, Inc., King of Prussia, Pa.

Appliance Products, 520 Fifth Ave., New York 36, N. Y.

BILL JACK SCIENTIFIC INSTRUMENT CO., P. O. Box C-3, Solana Beach, Calif.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

Bristol Motor Div., Vocaline Co. of America, Inc., Old Saybrook, Conn.

Camera Mart, Inc., 1845 Broadway, New York 23, N. Y.

Cinema-Television, Ltd., Worsley Bridge Rd., London SE 26, England.

Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.

COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.

Cramer Controls Corp., Box 13, Centerbrook, Conn.

DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.

Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.

Dynapar Corp., 5150 Church St., Skokie, Ill.

Eagle Signal Corp., Moline, Illinois.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

Elesta Ltd., Bad Ragaz, Switzerland.

FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 546.

Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 37, Mich.

General Photo Products Co., Inc., General Photo Bldg., 15 Summit Ave., Chatham, N. J.

Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.

Hagen Mfg. Co., 202 20th St., Moline, Ill.

HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 531.

HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. ADV. PG. 157.

Hupp Instru/Mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.

INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 506.

International Register Co., 2620 Washington Blvd., Chicago 12, Ill.

Lektra Laboratories, 154 11th Ave., New York 3, N. Y.

Luminate Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.

Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.

Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.

Pantek Co., Box 212, El Segundo, Calif.

PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.

Ransom Research, Box 382, San Pedro, Calif.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.

Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.

WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.

Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.

X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Clock Radio

Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.

General Electric Co., Clock and Timer Dept., Ashland, Mass.

Ingraham Co., E., Bristol, Conn.

International Register Co., 2620 Washington Blvd., Chicago 12, Ill.

Sessions Clock Co., Industrial Prod. Div., Forestville, Conn.

TIMERS—Cycle

Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing, Mich.

Aemco, Inc., 62 State St., Mankato, Minn.

Alden Systems, Inc., Alden Research Center, Westboro, Mass.

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.

Amglo Corp., 4333 N. Ravenswood Ave., Chicago 13, Ill.

Appliance Products, 520 Fifth Ave., New York 36, N. Y.

Automatic Timing & Controls, Inc., King of Prussia, Pa.

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

Bristol Motor Div., Vocaline Co. of America, Inc., Old Saybrook, Conn.

Cramer Controls Corp., Box 13, Centerbrook, Conn.

DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.

Dynapar Corp., 5150 Church St., Skokie, Ill.

Eagle Signal Corp., Moline, Ill.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

Elesta Ltd., Bad Ragaz, Switzerland.

Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 37, Mich.

Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.

Hagen Mfg. Co., 202 20th St., Moline, Ill.

HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 531.

HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. ADV. PG. 157.

Hubbard Scientific Labs., Inc., 1292 E. Third St., Pomona, Calif.

INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 506.

Ingraham Co., E., Bristol, Conn.

International Register Co., 2620 Washington Blvd., Chicago 12, Ill.

Luminate Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.

Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.

Pantek Co., Box 212, El Segundo, Calif.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.

Technical Electronics Corp., 4060 Ince Blvd., Culver City, Calif.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Tuttle & Kift, 1823 N. Monitor St., Chicago 38, Ill.

Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.

Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.

Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.

Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.

Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Electronic

Allegany Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Md.

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.

Appliance Products, 520 Fifth Ave., New York 36, N. Y.

Automatic Timing & Controls, Inc., King of Prussia, Pa.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 73-80.

BRIGGS ASSOCIATES INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.

Cinema-Television, Ltd., Worsley Bridge Rd., London S. E. 26, England.

Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.

COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.

Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.

Devtron Engineering, 1 Winslow St., Redwood City, Calif.

Dynapar Corp., 5150 Church St., Skokie, Ill.

Eagle Signal Corp., Moline, Ill.

Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

Elesta Ltd., Bad Ragaz, Switzerland.

FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 546.

Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 37, Mich.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

General Electronics Corp., 17 Madison Ave., Montgomery 4, Ala.

Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.

Holland Electronics, 40 Grant Jones St., New York 12, N. Y.

Hupp Instru/Mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.

I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.

Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.

Lektra Laboratories, 154 11th Ave., New York 3, N. Y.

Luminate Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Machinery Electrification, Inc., Northboro, Mass.

Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y.

Measurement Engineering, Ltd., Arncliffe, Ontario, Canada.

Nelson Instrument Co., 607 Howard St., Evanston, Ill.

Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Pantek Co., Box 212, El Segundo, Calif.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photoswitch Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
 Post Machinery Co., Electronic Products Div., 140 Elliott St., Beverly, Mass.
POTTER AERONAUTICAL CORP., Route #22, Union, N. J. ADV. PG. 372, 373.
 Ransom Research, Box 382, San Pedro, Calif.
 Research Electronics Laboratories, Roslyn, Pa.
 Robotron Corp., 21300 W. Eight Mile Rd., Detroit 19, Mich.
 Rutherford Electronics Co., 8944 Lindblade St., Culver City, Calif.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
 Teca Corp., 80 Main St., White Plains, N. Y.
 Technical Electronics Corp., 4060 Ince Blvd., Culver City, Calif.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Tempo Instrument Co., 5 Centre St., Hempstead, N. Y.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
 Weltron Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
 Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.

TIMERS—Hour Counting

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
 Automatic Timing & Controls, Inc., King of Prussia, Pa.
 Bristol Motor Division, Vocaline Company of America, Inc., Old Saybrook, Conn.
 Cinema-Television, Ltd., Worsley Bridge Rd., London SE 26, England.
 Clary Corp., San Gabriel, Calif.
 Cramer Controls Corp., Box 13, Centerbrook, Conn.
HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury, Conn. ADV. PG. 531.
HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. ADV. PG. 157.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 506.
 Ingraham Co., E., Bristol, Conn.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 503.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
 Technical Electronics Corp., 4060 Ince Blvd., Culver City, Calif.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.

TIMERS—Impulse

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
 Automatic Timing & Controls, Inc., King of Prussia, Pa.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
 Cramer Controls Corp., Box 13, Centerbrook, Conn.
DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.
 Eagle Signal Corp., Moline, Ill.
 Elesta Ltd., Bad Ragaz, Switzerland.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
 Hagen Mfg. Co., 202 20th St., Moline, Ill.
HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 531.
 Hubbard Scientific Labs., Inc., 1292 E. Third St., Pomona, Calif.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Machinery Electrification, Inc., Northboro, Mass.
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
 Streeter-Ames Co., Grayslake, Ill.

Technical Electronics Corp., 4060 Ince Blvd., Culver City, Calif.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Inertia

Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.

TIMERS—Motor Operated

Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing, Mich.
 Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 194.
 Amelco, Inc., 2040 Colorado Ave., Santa Monica, Calif.
 Anglo Corp., 4333 N. Ravenswood Ave., Chicago 13, Ill.
 Automatic Timing & Controls, Inc., King of Prussia, Pa.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Bristol Motor Division, Vocaline Company of America, Inc., Old Saybrook, Conn.
 Cramer Controls Corp., Box 13, Centerbrook, Conn.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.
DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. ADV. PG. 638.
 Exact Engineering & Mfg. Co., P. O. Box 668, Ocean-side, Calif.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
 Hagen Mfg. Co., 202 20th St., Moline, Ill.
HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 531.
HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. ADV. PG. 157.
 Hubbard Scientific Labs., Inc., 1292 E. Third St., Pomona, Calif.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 506.
 Ingraham Co., E., Bristol, Conn.
 Janco Corp., 3111 Winona Ave., Burbank, Calif.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave. S., Minneapolis 8, Minn.
 Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
 Robco Mfg. Co., 225 W. Main St., Patchogue, N. Y.
 Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
 Sessions Clock Co., Industrial Products Div., Forestville, Conn.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.

TIMERS—Multicontact

Anglo Corp., 4333 N. Ravenswood Ave., Chicago 13, Ill.
 Automatic Timing & Controls, Inc., King of Prussia, Pa.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Bristol Motor Div., Vocaline Co. of America, Inc., Old Saybrook, Conn.
 Cramer Controls Corp., Box 13, Centerbrook, Conn.
DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.
 Eyelet Tool Co., Inc., 236A Broadway, Cambridge 42, Mass.
 Ferrara, Int., 8106 W. Nine Mile Rd., Oak Park 37, Mich.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 531.
HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. ADV. PG. 157.
 Ingraham Co., E., Bristol, Conn.

Hubbard Scientific Labs., Inc., 1292 E. Third St., Pomona, Calif.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 506.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Percentage

Automatic Timing & Controls, Inc., King of Prussia, Pa.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Cramer Controls Corp., Box 13, Centerbrook, Conn.
 Hagen Mfg. Co., 202 20th St., Moline, Ill.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 506.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Photoelectric

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Autotron, Inc., 3629 N. Vermilion St., Danville, Ill.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 168.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Elesta Ltd., Bad Ragaz, Switzerland.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 546.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
 Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Machinery Electrification, Inc., Northboro, Mass.
 Pantek Co., P. O. Box 212, El Segundo, Calif.
 Photo Crystals Inc., 15 S. First St., Geneva, Ill.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.
 Photoswitch Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass.
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 458.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
 Untronics, Inc., 472 Paul Ave., Ferguson Station, St. Louis 23, Mo.
 Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.

TIMERS—Sequence

Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing, Mich.
ADAMS & WESTLAKE CO., Michigan St., Elkhart, Ind. ADV. PG. 58, 59.
 Aemco, Inc., 62 State St., Manly, Minn.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
 Anglo Corp., 4333 N. Ravenswood Ave., Chicago 13, Ill.
 Automatic Timing & Controls, Inc., King of Prussia, Pa.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Birdsell Mfg. Co., Inc., 750 San Antonio Rd., Palo Alto, Calif.
BRIGGS ASSOCIATES, INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Bristol Motor Div., Vocaline Co. of America, Inc., Old Saybrook, Conn.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Cramer Controls Corp., Box 13, Centerbrook, Conn.
DAYSTROM PACIFIC CORP., 9320 Lincoln Blvd., Los Angeles 45, Calif. ADV. PG. 690.
 Eagle Signal Corp., Moline, Ill.
 Elesta Ltd., Bad Ragaz, Switzerland.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 37, Mich.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
 Hagen Mfg. Co., 202 20th St., Moline, Ill.

HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 531.
HAYDON MFG. CO., INC., 245 E. Elm St., Torrington, Conn. ADV. PG. 157.
 Hubbard Scientific Labs., Inc., 1292 E. Third St., Pomona, Calif.

INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 506.
 Ingraham Co., E., Bristol, Conn.
 International Register Co., 2620 Washington Blvd., Chicago 12, Ill.
 Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
 Lumente Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Maico Co., Inc., 21 N. Third St., Minneapolis, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.
 Pantek Co., Box 212, El Segundo, Calif.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
 Robotron Corp., 21300 W. Eight Mile Rd., Detroit 19, Mich.

Technical Electronics Corp., 4060 Ince Blvd., Culver City, Calif.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. ADV. PG. 470.
 Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.
 Weltron Co., 19500 West Eight Mile Rd., Detroit 19, Mich.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Thermal

Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
EDISON INDUSTRIES, THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave, West Orange, N. J. ADV. PG. 144-146.
G-V CONTROLS INC., 28 Hollywood Plaza, East Orange, N. J. ADV. PG. 106.
 Livingston Electronic Corp., Livingston, N. J.
 Photo Crystals Inc., 15 S. First St., Geneva, Ill.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
ULANET CO., GEORGE, 413 Market St., Newark 5, N. J. ADV. PG. 547.

TIMERS—Welding, Electronic

Appellance Products, 520 Fifth Ave., New York 36, N. Y.
 Bellaire Electronics Inc., 62 White St., Red Bank, N. J.
 Birdsell Mfg. Co., Inc., 750 San Antonio Rd., Palo Alto, Calif.
BRIGGS ASSOCIATES, INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Elesta Ltd., Bad Ragaz, Switzerland.
 Ewald Instruments, Route 7E, Kent, Conn.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Lektra Labs., 154 11th Ave., New York 11, N. Y.
 Livingston Electronic Corp., Livingston, N. J.
 Photo Crystals Inc., 15 S. First St., Geneva, Ill.
 Robotron Corp., 21300 W. Eight Mile Rd., Detroit 19, Mich.

Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Thor Transformer & Electronics Co., 750 San Antonio Rd., Palo Alto, Calif.
 Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
 Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
 Weltron Co., 19500 West Eight Mile Road, Detroit 19, Mich.
 Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.

TIMING

See **CONTROLS—Timing**

TINNING—Hot Dipped

INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455.
 Johnson Mfg. Co., Inc., Mt. Vernon, Iowa.
 Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
MINITRON, INC., 1105 Second St., Encinitas, Calif. ADV. PG. 622.
 Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.
 Steel Protection & Chemical Co., Inc., Mooresville, Ind.
 Wright Metalcoaters Inc., 255 West St., South Hackensack, N. J.

TITRATION APPARATUS—Electronic

Deltiron, Inc., 2905 N. Leithgow St., Philadelphia 33, Pa.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.

MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W.C. 2, England. ADV. PG. 560.

TOOLS—Hand or Mechanical

Note: Includes grinders, milling cutters, pliers, punches, reamers, screwdrivers, taps, wrenches; wrenches, torque, etc. For further particulars, consult advertisement of manufacturer in this issue.

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
 Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
 Clauss Cutlery Co., Fremont, Ohio.
DESIGN TOOL CORP., 80 Washington St., New York 6, N. Y. ADV. PG. 678.
 Dremel Mfg. Co., 2300 18th St., Racine, Wis.
 Ed-Berl Products, Inc., 87 Merrick Rd., Baldwin, N. Y.
 Erwood, Inc., 1770 Berteau Ave., Chicago 13, Ill.
 F & M Sales, Inc., 1054 Cahunga Blvd., Hollywood 38, Calif.

Huck Mfg. Co., 2480 Bellevue Ave., Detroit 7, Mich.
 Hunter Tool Co., 9851 Albutis, Whittier, Calif.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
KEYSTONE ELECTRONICS CORP., 423 Broome St., New York 13, N. Y. ADV. PG. 675.
 Klein & Sons, Mathias, 7200 McCormick Rd., Chicago 45, Ill.
 Krauter & Co., Inc., 583 18th Ave., Newark 3, N. J.
 Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.
 Microdot, Inc., 220 Pasadena Ave., South Pasadena, Calif.
 Millers Falls Co., Greenfield, Mass.
 Moody Machine Products Co., Inc., 39 Dudley St., Providence 5, R. I.

PRECISE MEASUREMENTS CO., R. D. #1, Millbrooks Rd., Flemington, N. J. ADV. PG. 399.
 Richmond, Inc., 922 S. Myrtle Ave., Monrovia, Calif.
 Rush Wire Stripper Div. of The Eraser Co., Inc., 1068 S. Clinton St., Syracuse 4, N. Y.
 Shearcut Tool Co., 7045 Darby Ave., Reseda, Calif.
 Special Products Co., P. O. Box 188, Rockville 3, Md.
 Speedway Mfg. Co., 1834 S. 52nd Ave., Cicero 50, Ill.
 Stanley Tools, New Britain, Conn.
 Stevens-Walden, Inc., 475 Shrewsbury St., Worcester 4, Mass.
 Sturtevant Co., P. A., Addison, Ill.
 Television Accessories Co., Box 368, Scottsdale, Ariz.
 Utica Drop Forge & Tool Div. of Kelsey-Hayes Co., 2415 Whitesboro St., Utica 4, N. Y.
 Vaco Products Co., 317 E. Ontario St., Chicago 11, Ill.
 Wen Products, Inc., 5808 Northwest Highway, Chicago 31, Ill.
WENCO MFG CO., 1133 W. Hubbard St., Chicago 22, Ill. ADV. PG. 520.
 Xcelite, Inc., 28 Bank St., Orchard Park, N. Y.

TOOLS—Pneumatic Assembly

High Speed Hammer Co., Rochester, N. Y.
 Huck Mfg. Co., 2480 Bellevue Ave., Detroit 7, Mich.
 Keller Tool Div., Gardner-Denver Co., Grand Haven, Mich.
 Lemert Engineering Co., Inc., 185 E. Jefferson St., Plymouth, Ind.
 United Shoe Machinery Corp., 140 Federal St., Boston 7, Mass.

TOOLS—Resistance Soldering

Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
 Cole Radio Works, 86 Westville Ave., Caldwell, N. J.
 Hexacon Electric Co., 130 W. Caly Ave., Roselle Park, N. J.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
 Luma Electric Equipment Co., P. O. Box 132, Toledo 1, Ohio.
 Television Accessories Co., Box 368, Scottsdale, Ariz.
 Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
 Wassco Electric Products Corp., 204 S. Larkin Ave., Joliet, Ill.

TOOLS—Thermal Soldering

Hexacon Electric Co., 130 W. Caly Ave., Roselle Park, N. J.
 Technicraft Co., 1156 Commonwealth Ave., Boston 34, Mass.
 Television Accessories Co., Box 368, Scottsdale, Ariz.

TOOLS—Ultrasonic Soldering

Aeroprojects Incorporated, 310 E. Rosedale Ave., West Chester, Pa.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W.C. 2, England. ADV. PG. 560.

TOOLS—Wire Wrapping

DESIGN TOOL CORP., 80 Washington St., New York 6, N. Y. ADV. PG. 678.
 Keller Tool Div., Gardner-Denver Co., Grand Haven, Mich.
 Rush Wire Stripper Div., The Eraser Co., Inc., 1068 S. Clinton St., Syracuse 4, N. Y.

TOROIDAL WINDERS

See **MACHINES—Coil Winding**
MACHINES—Coil Winding, Toroidal

TORIDS

A. P. W. Co., 72 W. Main St., Rockaway, N. J.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
 American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
ARNOLD MAGNETICS CORP., 4613 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 553.
 Avion Division, ACF Industries, Inc., 11 Park Place, Paramus, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
BURNELL & CO., INC., 10 Pelham Parkway, Pelham, N. Y. ADV. PG. 350, 351.
 Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn.

Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
CHASE ELECTRONICS INC., 82-31 51st Ave., Elmhurst, N. Y. ADV. PG. 601.
 Coast Coil Co., 5333 W. Washington Blvd., Los Angeles 16, Calif.

COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.

D & R LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. ADV. PG. 698.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.

DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
 Double "E" Products Co., 216 Standard St., El Segundo, Calif.

DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
DYNAMICS RESEARCH ASSOCIATES DIV. OF UNIVERSAL MATCH CORP., 472 Paul Ave., Ferguson 21, Mo. ADV. PG. 649.

Electro-Tech Pacific, Santa Barbara Airport, P. O. Box 455, Goleta, Calif.

ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 682.

ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 571.

EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 674.

Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.

FILTER NETWORKS, INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 496.

Five Star Co., 10 W. Main St., Plantsville, Conn.
 Gramer-Halderson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill.

Hall Mfg. Co., 3901 Wesley Terrace, Schiller Park, Ill.
HERMETIC SEAL TRANSFORMER CO., 555 N. Fifth St., Garland, Texas. ADV. PG. 410.

HOULIHAN CO., T. J. 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590.

HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 188.

INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.

Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.

Keystone Products Co., 904-6 23rd St., Union City, N. J.

Litton Industries, Beverly Hills, Calif.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.

Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind.
MAGNETIC CORE CORP., 199 Main St., Ossining, N. Y. ADV. PG. 650.

MAGNETICO, INC., 18 Scudder Ave., Northport, N. Y. ADV. PG. 617.

Magnetics Research Co., Cor. Grove St., & E. Post Rd., White Plains, N. Y.

Metricronics, 1372-74 E. Walnut St., Pasadena, Calif.

MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 522.

Mid-West Coil & Transformer Co., 1642 N. Halstead St., Chicago 14, Ill.

Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.

Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.

Mt. Vernon Precision Transformer Co., 201 S. Third Ave., Mt. Vernon, N. Y.

NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.

NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676.

Nothofer Winding Labs., Inc., P. O. Box 455, Trenton, N. J.

ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648.

POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.

POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 681.
Precision, Inc., 730 Lyndale Ave., N. Minneapolis, Minn.
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607.
Railway Communications, Inc., 9351 E. 59th St., Raytown, Mo.
Randall Inc., Douglas, 6 Pawcatuck Ave., Westerly, R. I.
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 522.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Stator Electric Corp., 46-25 58th St., Woodside, N. Y. Telex, Inc., Telex Park, St. Paul 1, Minn.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles, Calif.
Torocoil Co., 2615 Bristol Rd., Columbus 21, Ohio.
Transformer Engineers, 161 E. California, Pasadena 1, Calif.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24.
Tranconic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
TRIAD TRANSFORMER CORP., SUB. OF LITTON INDUSTRIES, 4055 Redwood Ave., Venice, Calif. ADV. PG. 242.
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
Valor Electronic Components Co., 5808 Marilyn Ave., Culver City, Calif.
VARI-L CO., INC., P. O. Box 1433, Stamford, Conn. ADV. PG. 608.
Warsaw Coil Co., Warsaw, Ind.

TOURMALINE See CRYSTALS

TOWER SERVICE—Installers, Erectors, Maintainers

Electrical Tower Service, Inc., 325 S. Washington St., Peoria, Ill.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Stainless, Inc., Third St., North Wales, Pa.
Tower Construction Co., 2700 Hawkeye Drive, Sioux City, Iowa.
Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.
Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

TRACERS—Signal See INSTRUMENTS—Electrical Measuring

TRANSCEIVERS—Aviation

Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
Collins Radio Co., Cedar Rapids, Iowa.
Federal Telecommunication Lab., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
National Aeronautical Corp., Commerce Drive, Ft. Washington Industrial Park, Fort Washington, Pa.
Production Research Corp., Thornwood, N. Y.
Spivey Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Springer Aircraft Radio Co., Earl W., Route 11, Box 330, Sky Harbor Airport, Indianapolis, Ind.
Standard Telephones & Cables Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Telephonics Corp., Park Ave., Huntington, N. Y.

TRANSCEIVERS—Lifeboat

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.

TRANSCEIVERS—Portable

Avco Mfg. Corp., Crosley Div., 1329 Arlington St., Cincinnati 25, Ohio.
Collins Radio Co., Cedar Rapids, Iowa.
Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles 7, Calif.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.

Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
Production Research Corp., Thornwood, N. Y.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
Vocatron Mfg. Div. of Vocaline Co. of America, Inc., Old Saybrook, Conn.

TRANSCEIVERS—uhf

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
Gonset Co., 801 S. Main St., Burbank, Calif.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
Production Research Corp., Thornwood, N. Y.
Resdel Engineering Corp., 330 S. Fair Oaks Ave., Pasadena 1, Calif.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
Telephonics Corp., Park Ave., Huntington, N. Y.
Vocatron Mfg. Div. of Vocaline Co. of America, Inc., Old Saybrook, Conn.

TRANSCEIVERS—vhf

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
Gonset Co., 801 S. Main St., Burbank, Calif.
Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles 7, Calif.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.
Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
National Aeronautical Corp., Commerce Drive, Ft. Washington Industrial Park, Fort Washington, Pa.
National Electronics Laboratories, Inc., 1713 Kalorama Rd., N. W., Washington 9, D. C.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
Resdel Engineering Corp., 330 S. Fair Oaks Ave., Pasadena 1, Calif.
Standard Telephones & Cables Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
Stromberg-Carlson Co. Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Telephonics Corp., Park Ave., Huntington, N. Y.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.

TRANSUCERS

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
Aeroprojects, Incorporated, 310 E. Rosedale Ave., West Chester, Pa.
Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
American Diathermy Products, Inc., 11858 Mississippi Ave., Los Angeles 25, Calif.
Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.
Automatic Timing & Controls, Inc., King of Prussia, Pa.
BJ ELECTRONICS, BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 541.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
BOURNS LABORATORIES, INC., 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 444.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.

CENTRALAB DIV., GLOBE-UNION INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
Chesapeake Instrument Corp., Shadyside, Md.
Clark Electronic Lab., Box 165, Palm Springs, Calif.
Colvin Labs., Inc., 364 Glenwood Ave., East Orange, N. J.
Consolidated Avionics, Inc., Stamford, Conn.
Consolidated Electrodynamic Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
Darco Industries, Inc., Gyro Dynamics Div., 2151 E. Rosencrans Ave., El Segundo, Calif.
Datron Electronics, 3615 Aviation Blvd., Manhattan Beach, Calif.
Daytronic Corp., 216 S. Main St., Dayton, Ohio.
Delttime, Inc., 608 Fayette Ave., Mamaroneck, N. Y.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 677.
Dynaparc Corp., 5150 Church St., Skokie, Ill.
Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
Electronic Engineering Associates, Ltd., 1048 Brittan Ave., San Carlos, Calif.
Endevco Corp., 161 E. California St., Pasadena, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Genisco, Inc., 2233 Federal Ave., Los Angeles 64, Calif.
GIANNINI & CO., INC., G. M., 918 E. Green St., Pasadena 1, Calif. ADV. PG. 344.
Gow-Mac Instrument Co., 100 Kings Rd., Madison, N. J.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
Harris Transducer Corp., Woodbury, Conn.
Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
Hupp Electronics Co., 265 E. Pomfret St., Carlisle, Pa.
Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
King Laboratory, Inc., 2645 S. Second W., Salt Lake City 15, Utah.
Kistler Instrument Corp., 15 Webster St., North Tonawanda, N. Y.
McKenna Laboratories, Santa Monica 6, Calif.
Manning, Maxwell & Moore, Inc., Industrial Products Div., 250 E. Main St., Stratford, Conn.
Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
Minatronic Corp., 17 Cliveden Place, Belle Mead, N. J.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Nilsen Mfg. Co., Addison, Ill.
Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
Optron Corp., 3526 State St., Santa Barbara, Calif.
Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.
POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.
Premier Research Laboratories, Inc., 83 Seventh Ave., New York 11, N. Y.
Radiation, Inc., Melbourne, Fla.
SANBORN CO., 175 Wyman St., Waltham 54, Mass. ADV. PG. 125.
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
Schaevitz Engineering, P. O. Box 503, Camden 1, N. J.
Servonic Instruments, Inc., 1143 S. Fair Oaks Ave., Pasadena 2, Calif.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 143.
Statham Laboratories, Inc., 12401 W. Olympic Blvd., Los Angeles 64, Calif.
Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
Telex, Inc., Telex Park, St. Paul 1, Minn.
TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.
Transline Associates, 95 Summit St., Newark 3, N. J.
TRANS-SONICS, INC., P. O. Box 328, Lexington 73, Mass. ADV. PG. 525.
Ultradyne Engineering Labs., Inc., P. O. Box 8007, Albuquerque, N. M.
WAUGH ENGINEERING CO., 7842 Burnet Ave., Van Nuys, Calif. ADV. PG. 663.

TRANSFORMER WINDINGS

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill.
Chicago Telephone of California, Inc., 105 Pasadena Ave., South Pasadena, Calif.
Colcraft, Inc., Cary, Ill.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595.
DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill.
Ensign Coil Co., 2516 S. Pulaski Rd., Chicago, Ill.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 674.

Forest Electric Co., 7216 Circle Road, Forest Park, Ill.
Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio.
Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill.
Lindberg Engineering Co., 2450 W. Hubbard St., Chicago, Ill.
MAGNETICO, INC., 18 Scudder Ave., Northport, N. Y. ADV. PG. 617.
Mid-West Coil & Transformer Co., 1642 N. Halstead St., Chicago 14, Ill.
Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
Modern Industries Inc., 2601 Colorado Ave., Santa Monica, Calif.
Mystic Transformers, Inc., 63 Swanton St., Winchester, Mass.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676.
New York Coil Co., Phoenixville 12, Pa.
Oaktron Electric Co., Tinley Park, Ill.
POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697.
Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
Randall Inc., Douglas, 6 Pawcatuck Ave., Westerly, R. I.
Rolan Electric Co., 8233 S. Princeton Ave., Chicago 20, Ill.
SIGNAL TRANSFORMER CO., 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y.
Transformer Specialty Co., Inc., Bala Cynwyd, Pa.
Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa.

TRANSFORMERS

- Audio

1. Input, Output or Interstage

2. Modulator

3. Very Low Frequency
- Power

4. Current Limiting

5. 400 Cycle

6. Isolation

7. Plate, Filament or Bias—Under 500 Watts

8. Plate, Filament or Bias—Over 500 Watts

9. Saturable

10. Variable

11. Vibrator

12. Voltage Regulating

13. Welding

14. X-Ray
- A.C. Transformer Corp., 89 Madison St., Newark, N. J. 4-5-6-7-8-13.
ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. 5-6-7-8-9-10-12-13-14. ADV. PG. 378.
Acro Products Co., 369 Shurs Lane, Philadelphia 28, Pa. 11.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. 1-3-4-5-6-7-8-9-10.
Aerovox Corp., Pacific Coast Div., 2724 So. Peck Rd., Monrovia, Calif. 4-5-7.
Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J. 1-2-3-4-7-9-10.
Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa. 1-2-5-6-7-8-9-11.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. 1-2-3-5-6-7-9-11. ADV. PG. 297-300.
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. 1-2-3-5-6-7-8-9. ADV. PG. 442.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. 6. ADV. PG. 112.
Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind. 1-3-4-5-6-7-11-12-13-14.
ARNOLD MAGNETICS CORP., 4613 W. Jefferson Blvd., Los Angeles 16, Calif. 4-5-7-9-10-12. ADV. PG. 553.
ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. 4-5. ADV. PG. 570.
Atlas Coil, Inc., 63 Main St., Ansonia, Conn. 1-5-9-10-12-14.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. 1-2-3-4-5-6-7-8-9-10-11-12-13-14. ADV. PG. 600.
Audio Development Co., 2833 13th Ave. S. Minneapolis 7, Minn. 1-2-3-4-5-6-7-8-9-12.
Automation Instruments, Inc., Aluminum Foil Transformer Div., 401 E. Green St., Pasadena, Calif. 5-6-8.
Avion Division, ACF Industries, Inc., 11 Park Place, Paramus, N. J. 9.
Ballastran Corp., Fort Wayne, Ind. 1-2-3-4-5-6-7-8-9.
Barwood Electronics, Inc., 921 E. Broadway, Glendale 5, Calif. 1-5-6-7-8.

Basler Electric Co., 605 Fifth St., Highland, Ill. 1-2-3-4-5-6-7-8-9-10-11-12-13-14.
Best Mfg Co., Inc., 1200 Grove St., Irvington 11, N. J. 1.
Birdsell Mfg. Co., Inc., 750 San Antonio Rd., Palo Alto, Calif. 6-13.
Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J. 1-7-11.
BRACKE-SEIB X-RAY CO., INC., 16 Palham Bay Parkway, Pelham Manor, N. Y. 14. ADV. PG. 590.
CBC Electronics Co., Inc., 2601 N. Howard St., Philadelphia 33, Pa.
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. 5-6-7-8. ADV. PG. 50.
California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. 1-2-3-4-5-6-7-8-9-11.
Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn. 1-5-6-7-9-12.
Carlson & Nicholson, Inc., 497 Maynard Drive, Buffalo 21, N. Y. 5-7-9.
Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va. 1-2-5-6-9-11.
CELCO, Island Ave., Mahwah, N. J. 1-2-3-5-6-7-9-10-11-12. ADV. PG. 138, 139.
Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind. 1-2-4-5-6-7-9-12.
Central Transformer Corp., 910 W. Jackson Blvd., Chicago, Ill. 1-2-3-4-5-6-7-8-9-10-11-12-13-14.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. 1-2-3-4-5-6-7-8-9-11-13. ADV. PG. 470.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. 1-2-3-4-5-6-7-8-9-11-13. ADV. PG. 572.
CHICAGO STANDARD TRANSFORMER CORP., 3521 Addison St., Chicago, Ill. 1-2-5-6-7-8-9-10-11-12. ADV. PG. 466, 467.
Chicago Telephone of California, Inc., 105 Pasadena Ave., South Pasadena, Calif. 12.
Clifton Mfg. Co., Inc., 20 N. Springfield Rd., Clifton Heights, Pa. 1-2-3-4-5-6-7-9-11-12.
Coil Co. of America, Inc., 207 Washington St., Northvale, N. J. 1-2-3-4-5-6-7-8-9-11-13-14.
Collcraft, Inc., Cary, Ill. 1.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. 1-2-5-6-7-9-11. ADV. PG. 113-118.
Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill. 1-2-3-4-5-6-7-8-9-10-11-12.
Crest Transformer Corp., 1834-36 W. North Ave., Chicago 22, Ill. 1-2-3-4-5-6-7-8-11-12.
Crittenden Transformer Co., 1220 Nadeau St. Los Angeles, Calif. 5-6-8.
Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J. 1-2-3-5-6-7-8-11-12-13.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill. 1-7-9.
DANO ELECTRIC CO., Main St., Winsted, Conn. 12. ADV. PG. 584.
DEL ELECTRONICS CORP., 521 Homestead, Ave., Mt. Vernon, N. Y. 1-2-3-4-5-6-7-8-9-11-12-13-14. ADV. PG. 678.
DIETZ DESIGN MFG. CO., Grandview 6, Mo. 1-2-3-5-7-9-11. ADV. PG. 595.
Dinion Coil Co., Inc., Caledonia, N. Y. 1-2-3-5-6-7-9-11.
Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill.
Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass. 1-5-6-7-8.
EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. 4-5-6-8. ADV. PG. 660.
Electran Mfg. Co., 1901 N. Clybourn, Chicago, Ill. 1-2-4-5-6-7-8-11-13.
Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill. 1-2-3-5-6-7-8-11.
ELECTRO ENGINEERING WORKS, 401 Preda St., San Leandro, Calif. 1-2-3-4-5-6-7-8-9-11-12-13-14. ADV. PG. 512.
Electro-Tech Pacific, Santa Barbara Airport, P. O. Box 455, Goleta, Calif. 1-3-5-7.
Electronic Transformer Co., 70 Washington St., Brooklyn 1, N. Y. 1-2-3-4-5-6-7-8-9-11-13-14.
Ensign Coil Co., 2516 S. Pulaski Rd. Chicago, Ill. 1-2-3.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. 1-2-3-4-5-6-7-8-9-10-11-13. ADV. PG. 674.
ERA ELECTRIC CORP., 314 Valley Brook Ave., Lyndhurst, N. J. 1-2-4-5-6-7-8-9-11-12-13. ADV. PG. 665.
Ewald Instruments, 99 Nassau St., New York 38, N. Y. 13.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. 14. ADV. PG. 195-198.
Fairchild Engineering Corp., 934 Hope St., Springfield, Conn. 5-7-9.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. 1-2-3-4-5-6-7-8-11. ADV. PG. 620.
Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind. 1-5-6-7-8-9.
Forest Electric Co., 7216 Circle Road, Forest Park, Ill. 1-2-3-5-7-11.
Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio. 1-2-3-4-5-6-7-8-9-11.
Fox Products Co., 4720 N. 18th St., Philadelphia 41, Pa. 13.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. 1-2-3-4-5-6-7-8-9-11. ADV. PG. 460.
GENERAL CONTROLS CO., Glendale 1, Calif. 4-7. ADV. PG. 546.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 1-2-4-5-6-7-8-9-11-12-13-14. ADV. PG. 1-12.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y. 1.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. 1-2-3-5-10. ADV. PG. 316, 317.
General Transformer Co., 18240 Harwood Ave., Homewood, Ill. 1-2-5-6-7-8-11.
Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif. 1-2-3-4-5-6-7-8-9-11-12.
Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. 1-2-3-4-5-6-7-8-9-10-11-12.
Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich. 1-2-3-6-7-8-11-13.
Grand Transformers, Inc., Hey St., Grand Haven, Mich. 1-2-5-6-7-8-11.
Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J. 7-8-9-12.
Hadley Co., Inc., Robert M. 5112 S. Hoover St., Los Angeles 37, Calif. 1-2-3-5-6-7-9-11.
HERMETIC SEAL TRANSFORMER CO., 555 N. Fifth St., Grand Texas. 1-2-3-4-5-6-7-8-9-10-11-12-13-14. ADV. PG. 410.
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. 1-2-3-5-6-7-8-10-11. ADV. PG. 698.
Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J. 4-5-6-7-8-9-13-14.
Holl Audio Inc., 5014 N. Encinita Ave., Temple City, Calif. 1.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. 1-5. ADV. PG. 188.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. 1-2-3-4-5-6-7-8-9-10-11-13-14. ADV. PG. 454, 455.
Industron Corp., 55 Needham St., Newton Highlands, Mass. 8.
Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y. 1-2-3-5-6-7-8-11.
Jack & Heintz, Inc., Cleveland 1, Ohio. 5.
JAMES VIBRAPOWR CO., 4050 N. Rockwell St., Chicago 18, Ill. 1-5-7. ADV. PG. 542.
K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. 1-2-4-5-6-7-8-9-11.
Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. 1-2-3-4-5-6-7-8-9-11.
KESSLER CO., FRANK, 41-45 47th St., Long Island City 4, N. Y. 5-6. ADV. PG. 653.
Keystone Products Co., 904-6 23rd St., Union City, N. J. 1-3-4-5-6-7.
Knopp Inc., 4224 Holden St., Oakland 8, Calif. 5-6-7-8.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. 1-2-5-7-9-12. ADV. PG. 358.
Langwin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y. 1-2-3-4-5-6-7-8-9-10-11-12-13-14.
LAVOIE LABORATORIES, INC., Morganville, N. J. 2-3-5-7-9-12. ADV. PG. 485.
Lindberg Engineering Co., 2450 W. Hubbard St., Chicago, Ill. 7-8.
Litton Industries, Beverly Hills, Calif. 1-2-4-5-6-7-10-11-12.
McGregor Electronic Industries, McGregor, Iowa. 1-3-4-5-6.
MACARR, INC., 2543 Boston Rd., Bronx 67, N. Y. ADV. PG. 640.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. 1-2-3-4-5-6-7-8-9-10-11-12-13-14.
MAGNATRAN, INC., P. O. Box 211, Kearny, N. J. 1-2-7-8-12. ADV. PG. 383.
Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind. 1-2-3-5-6-7.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. 5-6-9. ADV. PG. 389.
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. 9. ADV. PG. 292, 293.
Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. 1-2-3-4-5-6-7-8-9-11-14.
MAGNETICO, INC., 18 Scudder Ave., Northport, N. Y. 7-9. ADV. PG. 617.
Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y. 1-5-6-7-9.
Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill. 1-2-6-7-8-10-11.
Metal & Thermit Corp., Rahway, N. J. 13.
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. 1-2-3-5-6-7-11. ADV. PG. 646.
Mid-West Coil & Transformer Co., 1642 N. Halstead St., Chicago 14, Ill. 1-3-4-7-9-11.
Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. 1-2-3-4-5-6-7-8-9-10-11-12-13-14.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. 3. ADV. PG. 447.
Modern Industries Inc., 2601 Colorado Ave., Santa Monica, Calif. 4-5-6-7-8-9.
MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. 2-5-8. ADV. PG. 527.

Moran Electronic Components, Inc., 7660 Woodbury Drive, Silver Spring, Md. 1-5. (h)
 Mt. Vernon Precision Transformer Co., 201 S. Third Ave., Mt. Vernon, N. Y. 1-3-4-5-6-7-8-9-10-11-12-14. (h)
 Mystic Transformers, Inc., 63 Swanton St., Winchester, Mass. 1-5-6-7-8. (h)
 NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. 5-6-7-8-9-12. ADV. PG. 369, 370. (h)
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. 1-2-3-4-5-6-7-8-9-11. (h)
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif. National Co., Inc., 61 Sherman St., Malden 48, Mass. 3-4-5-6-7-8-9-11-12. (h)
 NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. 1-2-6-7-8-11. ADV. PG. 676. (h)
 New York Coil Co., Phoenixville 12, Pa. 1-4-5-6-7-8-10-11. (h)
 New York Transformer Co., Inc., Third Ave., Alpha, N. Y. 2-7-9-11. (h)
 Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y. 7. (h)
 Notherfel Winding Labs, Inc., P. O. Box 455, Trenton, N. J. 4-5-6-7-8-9-10-12-14. (h)
 Oaktron Electric Co., Tinley Park, Ill. 1-2-3-5-6. (h)
 OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. 9. ADV. PG. 282, 283. (h)
 Omega Electronics Co., 355 Atlantic Ave., Brooklyn 17, N. Y. 1-6-7-8-9-11. (h)
 ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. 1-2-3-4-5-6-7-8-9. ADV. PG. 648. (h)
 Oxford Electric Corp., 3911 S. Michigan Ave., Chicago 15, Ill. 1-2-3-4-6-7-11. (h)
 Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 64, Calif. 1. (h)
 Partridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England. 1-2-3-4-5-6-7-8. (h)
 Peerless Electrical Products Div., Altac Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif. 1-2-3-4-5-6-7-8-9-10-11. (h)
 PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. 4. ADV. PG. 682. (h)
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y. 14. (h)
 POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. 1-2-3-5-6-7-9. ADV. PG. 697. (h)
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J. 1-2-3-4-5-6-7-8-9-10-11-12-14. (h)
 PRECISE MEASUREMENTS CO., R. D. #1, Millbrook Rd., Flemington, N. J. 11. ADV. PG. 399. (h)
 Quam Nichols Co., Marquette Rd. & Prairie Ave., Chicago 37, Ill. 1. (h)
 RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 435 S. Fifth St., Harrison, N. J. 6. ADV. PG. 453, Third & Fourth Covers. (h)
 Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J. 1. (h)
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill. 1-2-6-7-8. (h)
 RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. 1-4-6-8-9-12-13. ADV. PG. 250, 251. (h)
 Railway Communications, Inc., 9351 E. 59th St., Raytown, Mo. 9. (h)
 Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn. 1-2-3-5-6-7-8-11. (h)
 Rola Co., Inc., 2530 Superior Ave., Cleveland 14, Ohio. 1-2-3-5-6-7-11. (h)
 Rye Sound Corp., 21 Rye Rd., Rye, N. Y. 1. (h)
 S N C Mfg. Co., Inc., Box 277, Oshkosh, Wis. 1-6-7-8-9-10-11-12. (h)
 Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill. 1-2-3-5-6-7-9-14. (h)
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill. 13. (h)
 Servomechanisms, Inc., 12500 Aviation Blvd., Hawthorne, Calif. 1-2-10. (h)
 SIGNAL TRANSFORMER CO., 902 Connel Island Ave., Brooklyn 18, N. Y. 1-2-3-5-6-7-8-9-11. ADV. PG. 667. (h)
 Skysweeper, Inc., McHenry, Ill. 1-4-5-6-7-8-11. (h)
 SLAUGHTER COMPANY, Piqua 9, Ohio. 10. ADV. PG. 494. (h)
 SOLA ELECTRIC CO., 4633 W. 16th St., Chicago 50, Ill. 12. ADV. PG. 269-272. (h)
 SORENSON & CO., INC., Richards Ave., Norwalk, Conn. 12. ADV. PG. 151-154. (h)
 Sorgel Electric Co., 838 W. National Ave., Milwaukee 4, Wis. 6-7-8-9-10-13. (h)
 SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. 1-3-5-7-8-9-11. ADV. PG. 294, 295. (h)
 Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill. 11-12. (h)
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. 1-2-3-4-5-6-7-8-9-11-12-13-14. (h)
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y. 9-12. (h)
 STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. 1-2-4-5-6-7-8-9-11. ADV. PG. 644. (h)
 Stromberg-Carlson Co. Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y. 1. (h)
 SUPERIOR ELECTRIC CO., THE, 5000 Bradley Ave., Bristol, Conn. 5-10-12. ADV. PG. 96-99. (h)
 SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. 4. ADV. PG. 733-739. (h)
 TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. 5-6-7-8-9-10-12. ADV. PG. 549. (h)
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y. 1-2-5-7. (h)
 Telex, Inc., Telex Park, St. Paul 1, Minn. 1-3 (h)

Telvision Laboratories, Inc., Mill St., Wauconda, Ill. 1-7-11. (h)
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y. 1-2-3-4-5-6-7-8-9-10-11-12-13-14. (h)
 TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. 1-2-3-5-6-7-8-9-11. ADV. PG. 280, 281. (h)
 Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill. 6-9-13. (h)
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. 1-2-3-4-5-6-7-8-9-11-12. (h)
 Thor Transformer & Electronics Co., 750 San Antonio Rd., Palo Alto, Calif. 4-6-7-8-9-10. (h)
 Thordanson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. 1-2-3-4-5-6-7-8-9-10-11-12-13-14. (h)
 Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y. 1-2-3-5-6-7-8-9-11. (h)
 TOTOTEL, INC., 11505 Bellmont Ave., Hickman Mills, Mo. 1-2. ADV. PG. 539. (h)
 TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. 1-5-6-7. ADV. PG. 405. (h)
 Transformer Specialty Co., Inc., Bala-Cynwyd, Pa. 1-2-3-4-5-6-7-8-11-13-14. (h)
 TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. 1-2-3-5-6-7-8-9-11. ADV. PG. 21-24. (h)
 Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif. 1-2-3-4-5-6-7-8-9-11. (h)
 Trenton Transformer Corp., Box 568B, Trenton, N. J. 1-4-5-6-7-8-9-10-11-13-14. (h)
 TRESKO, INC., 3824 Terrace St., Philadelphia, 28, Pa. 1-2-3-5-6-7-9-11. ADV. PG. 687. (h)
 TRIAD TRANSFORMER CORP., SUB. OF LITTON INDUSTRIES, 4055 Redwood Ave., Venice, Calif. 1-2-5-6-7-11. ADV. PG. 242. (h)
 Triplett & Barton, Inc., 831 N. Lake St., P. O. Box 3128, Burbank, Calif. 14. (h)
 Tronic Coil Winding Co., Inc., 58 Wesley St., Waterbury, Conn. 1-4-5-6-7-8-9-10-12. (h)
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J. 1-4-5-6-7. (h)
 U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. 1-2-7-8-9-11. ADV. PG. 220. (h)
 UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. 1-2-3-4-5-6-7-8-9-10-11-12. ADV. PG. Second Cover. (h)
 Utrad, Inc., 305 N. Briant, Huntington, Ind. 1-2-5-6-7-8-11. (h)
 VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. 1-2-3-4-5-6-7-8-9-12. ADV. PG. 564. (h)
 VIBRATION RESEARCH LABS., INC., 97 Lake Ave., Tuckahoe, N. Y. 5-7-9-11-12. ADV. PG. 621. (h)
 Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa. 1-2-3-4-5-6-7-8-9-11-12-14. (h)
 Webster Electric Co., 1900 Clark St., Racine, Wis. 1. (h)
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. 1-2-3-5. ADV. PG. 205-216. (h)
 Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn. 1-5-6-7-9-11. (h)
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis. 14. (h)

TRANSFORMERS—Fly Back

Admiral Corp., 3800 Cortland St., Chicago 47, Ill. (h)
 ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442. (h)
 ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600. (h)
 CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139. (h)
 CHICAGO STANDARD TRANSFORMER CORP., 3521 Addison St., Chicago, Ill. ADV. PG. 466, 467. (h)
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill. (h)
 DANO ELECTRIC CO., Main St., Winsted, Conn. ADV. PG. 584. (h)
 Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill. (h)
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J. (h)
 Gramer-Hallidorsen Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
 Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill. (h)
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y. (h)
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y. (h)
 Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y. (h)
 Litton Industries, Beverly Hills, Calif. (h)
 McGregor Electronic Industries, McGregor, Iowa. (h)
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill. (h)
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
 NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676. (h)
 Oaktron Electric Co., Tinley Park, Ill. (h)
 Peerless Electrical Products Div., Altac Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif. (h)
 Penn Tran Corp., Belfonte, Pa. (h)
 POLYPHASE INSTRUMENT CO., East Fourth St., Bridgeport, Penna. ADV. PG. 697. (h)
 RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 435 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers. (h)

Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J. (h)
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill. (h)
 Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio. (h)
 Sickles, F. W. Div., General Instrument Corp., 165 Front St., Chicopee, Mass. (h)
 SIOUX RADIO PRODUCTS, 100 Douglas Ave., Yankton, S. D. ADV. PG. 538. (h)
 Standard Winding Corp., 44-62 Johnes St., Newburgh, N. Y. (h)
 Stewart Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn. (h)
 SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739. (h)
 TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417. (h)
 Thordanson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
 Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y. (h)
 Transformer Engineers, 161 E. California St., Pasadena 1, Calif. (h)
 TRIAD TRANSFORMER CORP., SUB. OF LITTON INDUSTRIES, 4055 Redwood Ave., Venice, Calif. ADV. PG. 242. (h)
 U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220. (h)

TRANSFORMERS—Foil Wound

Automation Instruments, Inc., Aluminum Foil Transformer Div., 401 E. Green St., Pasadena, Calif. (h)
 GOOD-ALL ELECTRIC MFG. CO., 112 W. First St., Ogallala, Neb. ADV. PG. 124. (h)
 SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway New York 19, N. Y. ADV. PG. 733-739. (h)

TRANSFORMERS—High Voltage Power Supply

A. C. Transformer Corp., 89 Madison St., Newark, N. J. (h)
 Ace Coil & Electronics Co., 912 Lincoln Highway, Metuchen, N. J. (h)
 ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 378. (h)
 Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa. (h)
 AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300. (h)
 AMP INC., CHEMICALS & DIELECTRICS DIV., 155 Park St., Elizabethtown, Pa. ADV. PG. 255. (h)
 Atlas Coil, Inc., 63 Main St., Ansonia, Conn. (h)
 ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600. (h)
 Audio Development Co., 2833 13th Ave., South Minneapolis 7, Minn. (h)
 Automation Instruments, Inc., Aluminum Foil Transformer Div., 401 E. Green St., Pasadena, Calif. (h)
 Barwood Electronics, Inc., 921 E. Broadway, Glendale 5, Calif. (h)
 Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
 BRACKE-SEIB X-RAY CO., INC., 16 Pelham Bay Parkway, Pelham Manor, N. Y. ADV. PG. 590. (h)
 CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 50. (h)
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
 CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139. (h)
 Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill. (h)
 CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470. (h)
 CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572. (h)
 Chicago Telephone of California, Inc., 105 Pasadena Ave., South Pasadena, Calif. (h)
 Coil Co. of America, Inc., 207 Washington St., Northvale, N. J. (h)
 Crest Transformer Corp., 1834-36 W. North Ave., Chicago 22, Ill. (h)
 DEL ELECTRONICS CORP., 521 Homestead Ave., Mt. Vernon, N. Y. ADV. PG. 678. (h)
 Dinlon Coil Co., Inc., Caledonia, N. Y. (h)
 Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass. (h)
 EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660. (h)
 Electran Mfg. Co., 1901 N. Clybourn, Chicago, Ill. (h)
 ELECTRO ENGINEERING WORKS, 401 Preda St., San Leandro, Calif. ADV. PG. 512. (h)
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y. (h)
 Embassy Engineering Corp., 673 Elton Ave., New York 51, N. Y. (h)
 EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 674. (h)
 ERA ELECTRIC CORP., 314 Valley Brook Ave., Lyndhurst, N. J. ADV. PG. 665. (h)
 Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind. (h)
 Forest Electric Co., 7216 Circle Rd., Forest Park, Ill. (h)
 Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J. (h)
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12. (h)
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif. (h)
 Gramer-Hallidorsen Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich. (h)

Grand Transformers, Inc., Hey St., Gand Haven, Mich. (h)
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y. (h)
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 698. (h)
 Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J. (h)
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455. (h)
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y. (h)
 K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. (h)
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. (h)
 Keystone Products Co., 904-6 23rd St., Union City, N. J. (h)
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358. (h)
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y. (h)
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485. (h)
 Litton Industries, Beverly Hills, Calif. (h)
 Magnadyne Co., 84 S. Water St., Port Chester, N. Y. (h)
MAGNATRAN, INC., P. O. Box 211, Kearny, N. J. ADV. PG. 383. (h)
 Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind. (h)
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. (h)
 McGregor Electronic Industries, Inc., McGregor, Iowa. (h)
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill. (h)
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646. (h)
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif. (h)
 Model Electric Products Corp., 1500 Bangs Ave., Asbury Park, N. J. (h)
 Modern Industries Inc., 2601 Colorado Ave., Santa Monica, Calif. (h)
MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. ADV. PG. 527. (h)
 Mystic Transformers, Inc., 63 Swanton St., Winchester, Mass. (h)
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 369, 370. (h)
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif. (h)
NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676. (h)
 New York Transformer Co., Inc., Third Ave., Alpha, N. J. (h)
 Notherfer Winding Labs., Inc., P. O. Box 455, Trenton, N. J. (h)
 Omega Electronics Co., 355 Atlantic Ave., Brooklyn 17, N. Y. (h)
 Osborne Electric Co., 712 S. E. Hawthorne, Portland 14, Ore. (h)
 Partridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England. (h)
 Peerless Electrical Div. of Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif. (h)
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 500. (h)
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J. (h)
PRECISE MEASUREMENTS CO., R. D. #1, Millbrook Rd., Flemington, N. J. ADV. PG. 399. (h)
 Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y. (h)
 Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J. (h)
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill. (h)
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251. (h)
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 522. (h)
 Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn. (h)
 S N C Mfg. Co., Inc., Box 277, Oshkosh, Wis. (h)
 Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill. (h)
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y. (h)
SIGNAL TRANSFORMER CO., 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667. (h)
 Skysweeper Inc., McHenry, Ill. (h)
SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 230, 231. (h)
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J. (h)
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. (h)
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y. (h)
STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. ADV. PG. 644. (h)
 Summit Coil Co., 4 Claremont Rd., Bernardsville, N. J. (h)
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549. (h)
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417. (h)
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y. (h)
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y. (h)

TEXAS INSTRUMENTS INCORPORATED, 6000 Lemon Ave., Dallas 9, Texas. ADV. PG. 280, 281 (h)
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. (h)
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
 Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y. (h)
 Todd-Tran Corp., 156 Gramatan Ave., Mt. Vernon, N. Y. (h)
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y. (h)
 Transformer Specialty Co., Inc., Bala-Cynwyd Pa. (h)
 Trenton Transformer Corp., Box 568, Trenton, N. J. (h)
TRESCO, INC., 3824 Terrace St., Philadelphia 28, Pa. ADV. PG. 687. (h)
 Tronic Coil Winding Co., Inc., 58 Wesley St., Waterbury, Conn. (h)
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J. (h)
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. Y. ADV. PG. 220. (h)
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover. (h)
UNIVERSAL ATOMICS, A DIV. OF UNIVERSAL TRANSISTOR PRODUCTS CORP., 143 E. 49th St., New York 17, N. Y. ADV. PG. 548. (h)
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564. (h)
VIBRATION RESEARCH LABS., INC., 97 Lake Ave., Tuckahoe, N. Y. ADV. PG. 621. (h)
 Waco, Inc., 2032 Broadway, Santa Monica, Calif. (h)
 Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa. (h)

TRANSFORMERS—Instrument

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. (h)
 Aircraft Transformer Corp., 234 Creek Rd., Keansburgh, N. J. (h)
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442. (h)
 Annis Co., R. B., 1101 N. Delaware St., Indianapolis, Ind. (h)
 Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind. (h)
ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 570. (h)
 Atlas Coil, Inc., 63 Main St., Ansonia, Conn. (h)
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600. (h)
 Audio Development Co., 2833 13th Ave., South Minneapolis 7, Minn. (h)
 Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn. (h)
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
 Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn. (h)
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139. (h)
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470. (h)
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572. (h)
 Clifton Mfg. Co., Inc., 20 N. Springfield Rd., Clifton Heights, Pa. (h)
 Crest Transformer Corp., 1834-36 W. North Ave., Chicago 22, Ill. (h)
 Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill. (h)
 Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass. (h)
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J. (h)
 Electron Mfg. Co., 1901 N. Clybourn, Chicago, Ill. (h)
 Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 29, Ill. (h)
ELECTRO ENGINEERING WORKS, 401 Preda St., San Leandro, Calif. ADV. PG. 512. (h)
 Electro-Tech Pacific, Santa Barbara Airport, P. O. Box 455, Goleta, Calif. (h)
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y. (h)
 Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind. (h)
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460. (h)
GENERAL ELECTRIC CO., APPARATUS SALES DIV., I River Rd., Schenectady 5, N. Y. ADV. PG. 1-12 (h)
 General Transformer Co., 18240 Harwood Ave., Homewood, Ill. (h)
GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684. (h)
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif. (h)
 Gramer-Hallidorsen Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich. (h)
 Hadley Co., Inc., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)
 Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J. (h)
INDUSTRIAL TRANSFORMER CO., Gouldsboro, Pa. ADV. PG. 454, 455. (h)
JAMES VIBRAPOW CO., 4050 N. Rockwell St., Chicago 18, Ill. ADV. PG. 542. (h)
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. (h)

Keystone Products Co., 904-6 23rd St., Union City, N. J. (h)
 Knopp Inc., 4224 Holden St., Oakland 8, Calif. (h)
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y. (h)
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485. (h)
 Litton Industries, Beverly Hills, Calif. (h)
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. (h)
 Marine Electric Co., 600 Fourth Ave., Brooklyn, N. Y. (h)
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646. (h)
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. (h)
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447. (h)
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676. (h)
 New York Transformer Co., Inc., Third Ave., Alpha, N. J. (h)
 Notherfer Winding Labs., Inc., P. O. Box 455, Trenton, N. J. (h)
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648. (h)
 Osborne Electric Co., 712, S. E. Hawthorne, Portland 14, Ore. (h)
 Oxford Electric Corp., 3911 S. Michigan Ave., Chicago 15, Ill. (h)
 Peerless Electrical Products Div., Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif. (h)
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486. (h)
PHYSICS RESEARCH LABS., INC., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682. (h)
 Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio. (h)
 Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill. (h)
 S N C Mfg. Co., Inc., Box 277, Oshkosh, Wis. (h)
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill. (h)
 Servomechanisms, Inc., 12500 Aviation Blvd., Hawthorne, Calif. (h)
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57. (h)
SIGNAL TRANSFORMER CO., 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667. (h)
 Skysweeper Inc., McHenry, Ill. (h)
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J. (h)
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. (h)
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739. (h)
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y. (h)
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemon Ave., Dallas 9, Texas. ADV. PG. 280, 281. (h)
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
TORTEL, INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539. (h)
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405. (h)
 Transformer Engineers, 161 E. California St., Pasadena 1, Calif. (h)
 Transformer Specialty Co., Inc., Bala-Cynwyd, Pa. (h)
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 23-24. (h)
 Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif. (h)
 Trenton Transformer Corp., Box 468B, Trenton, N. J. (h)
TRESCO, INC., 3824 Terrace St., Philadelphia 28, Pa. ADV. PG. 687. (h)
 Tronic Coil Winding Co., Inc., 58 Wesley St., Waterbury, Conn. (h)
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover. (h)
 Utrad, Inc., 305 N. Briant, Huntington, Ind. (h)
 Waco, Inc., 2032 Broadway, Santa Monica, Calif. (h)
 Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa. (h)
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216. (h)
 Weston Electrical Instrument Corp., Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N. J. (h)

TRANSFORMERS—Microwave

See MICROWAVE ACCESSORIES

TRANSFORMERS—Miniature

ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 378. (h)
 A.P.W. Co., 72 W. Main St., Rockaway, N. J. (h)
 Acro Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind. (h)
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. (h)
 Aircraft Transformer Corp., 234 Creek Rd., Keansburgh, N. J. (h)
 Aldesign, Inc., 241 Fairfield Ave., Upper Darby, Pa. (h)
AIRPAQ PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300. (h)
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442. (h)

ARNOLD MAGNETICS CORP., 4613 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 553. (h)
Atlas Coil, Inc., 63 Main St., Ansonia, Conn. (h)
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600. (h)
Audio Development Co., 2833 13th Ave. S., Minneapolis 7, Minn. (h)
Ballastran Corp., Fort Wayne, Ind. (h)
Barwood Electronics Inc., 921 E. Broadway, Glendale 5, Calif. (h)
Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 50. (h)
California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150. (h)
Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn. (h)
Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va. (h)
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139. (h)
Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind. (h)
Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill. (h)
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470. (h)
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572. (h)
CHICAGO STANDARD TRANSFORMER CORP., 3521 Addison St., Chicago, Ill. ADV. PG. 466, 467. (h)
Clifton Mfg. Co., Inc., 20 N. Springfield Rd., Clifton Heights, Pa. (h)
Cliffcraft, Inc., Cary, Ill. (h)
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118. (h)
Crest Transformer Corp., 1834-36 W. North Ave., Chicago 22, Ill. (h)
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill. (h)
DEL ELECTRONICS CORP., 521 Homestead Ave., Mt. Vernon, N. Y. ADV. PG. 678. (h)
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595. (h)
Dinion Coil Co., Inc., Caledonia, N. Y. (h)
Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill. (h)
DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J. (h)
Electran Mfg. Co., 1901 N. Clybourn, Chicago, Ill. (h)
ELECTRO ENGINEERING WORKS, 401 Preda St., San Leandro, Calif. ADV. PG. 512. (h)
Electro-Tech Pacific, Santa Barbara Airport, P. O. Box 455, Goleta, Calif. (h)
Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y. (h)
Ensign Coil Co., 2516 S. Pulaski Rd., Chicago, Ill. (h)
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 674. (h)
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63. (h)
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620. (h)
Fisher Engineering, Inc., 2060 U. S. East, P.O. Box 327, Huntington, Ind. (h)
Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio. (h)
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460. (h)
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12. (h)
General Transformer Co., 18240 Harwood Ave., Homewood, Ill. (h)
Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif. (h)
Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
Hadley Co., Inc., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 698. (h)
INDUSTRIAL TRANSFORMER CO., Gouldsboro, Pa. ADV. PG. 454, 455. (h)
Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y. (h)
K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. (h)
Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. (h)
KESSLER CO., FRANK, 41-45 47th St., Long Island City 4, N. Y. ADV. PG. 653. (h)
Keystone Products Co., 904-6 23rd St., Union City, N. J. (h)
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358. (h)
Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y. (h)
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485. (h)
Liton Industries, Beverly Hills, Calif. (h)
McGregor Electronic Industries, McGregor, Iowa. (h)
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
Magnadyne Co., 84 S. Water St., Port Chester, N. Y. (h)
Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind. (h)
Magnetic Windings Div., Essex Wire Corp., Freemanburg Ave. at Hobson Blvd., Easton, Pa. (h)

MAGNETICO, INC., 18 Scudder Ave., Northport, N. Y. ADV. PG. 617. (h)
Metronics, 1372-74 E. Walnut St., Pasadena, Calif. (h)
Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill. (h)
MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 522. (h)
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646. (h)
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif. (h)
Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. (h)
Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J. (h)
Mystic Transformers, Inc., 63 Swanton St., Winchester, Mass. (h)
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
National Coil Co., P. O. Box 1237, Sheridan, Wyo. (h)
NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676. (h)
New York Coil Co., Phoenixville 12, Pa. (h)
New York Transformer Co., Inc., Third Ave., Alpha, N. J. (h)
Oaktron Electric Co., Tinley Park, Ill. (h)
Omega Electronics Co., 355 Atlantic Ave., Brooklyn 17, N. Y. (h)
Osborne Electric Co., 712 S.E. Hawthorne, Portland 14, Ore. (h)
Oxford Electric Corp., 3911 S. Michigan Ave., Chicago 15, Ill. (h)
Partridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England. (h)
Peerless Electrical Div. of Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif. (h)
POLYPHASE INSTRUMENT CORP., East Fourth St., Bridgeport, Pa. ADV. PG. 697. (h)
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607. (h)
Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y. (h)
Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J. (h)
Ransom Research, Box 382, San Pedro, Calif. (h)
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251. (h)
Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn. (h)
Rye Sound Corp., 21 Rye Rd., Rye, N. Y. (h)
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill. (h)
Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill. (h)
Servomechanisms, Inc., 12500 Aviation Blvd., Hawthorne, Calif. (h)
SIGNAL TRANSFORMER CO., 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667. (h)
Skysweeper, Inc., McHenry, Ill. (h)
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295. (h)
STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. ADV. PG. 644. (h)
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739. (h)
Telex, Inc., Telex Park, St. Paul 1, Minn. (h)
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y. (h)
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281. (h)
Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. (h)
Thordarson-Melissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
Todd Products, 156 Gramatan Ave., Mt. Vernon, N. Y. (h)
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405. (h)
Transformer Engineers, 161 E. California, Pasadena 1, Calif. (h)
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24. (h)
Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif. (h)
TRESCO, INC., 3824 Terrace St., Philadelphia 28, Pa. ADV. PG. 687. (h)
TRIAD TRANSFORMER CORP., SUB. OF LITTON INDUSTRIES, 4055 Redwood Ave., Venice Calif. ADV. PG. 242. (h)
Tronic Coil Winding Co. Inc., 58 Wesley St., Waterbury, Conn. (h)
Tur-Bo Jet Products, Inc., 424 S. San Gabriel Blvd., San Gabriel, Calif. (h)
Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J. (h)
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. Y. ADV. PG. 220. (h)
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover. (h)
Utrad, Inc., 305 N. Briant, Huntington, Ind. (h)
Valor Electronic Components Co., 5808 Marilyn Ave., Culver City, Calif. (h)
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564. (h)
Waco, Inc., 2032 Broadway, Santa Monica, Calif. (h)
Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa. (h)
Wheeler Insulated Wire Co., Inc., The, Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn. (h)

TRANSFORMERS—Precision Matched

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. (h)
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300. (h)
ARNOLD MAGNETICS CORP., 4613 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 553. (h)
Atlas Coil, Inc., 63 Main St., Ansonia, Conn. (h)
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600. (h)
Audio Development Co., 2833 13th Ave., S. Minneapolis 7, Minn. (h)
Ballastran Corp., Fort Wayne, Ind. (h)
Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 50. (h)
California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn. (h)
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139. (h)
Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind. (h)
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470. (h)
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572. (h)
Coast Coil Co., 5333 W. Washington Blvd., Los Angeles 16, Calif. (h)
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118. (h)
DEL ELECTRONICS CORP., 521 Homestead Ave., Mt. Vernon, N. Y. ADV. PG. 678. (h)
Dinion Coil Co., Inc., Caledonia, N. Y. (h)
Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill. (h)
Electro-Tech Pacific, Santa Barbara Airport, P. O. Box 455, Goleta, Calif. (h)
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460. (h)
Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
Hadley Co., Inc., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)
INDUSTRIAL TRANSFORMER CO., Gouldsboro, Pa. ADV. PG. 454, 455. (h)
K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. (h)
Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. (h)
Keystone Products Co., 904-6 23rd St., Union City, N. J. (h)
Knopp Inc., 4224 Holden St., Oakland 8, Calif. (h)
Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y. (h)
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485. (h)
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind. (h)
Magnetic Windings Div., Essex Wire Corp., Freemanburg Ave. at Hobson Blvd., Easton, Pa. (h)
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646. (h)
Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. (h)
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676. (h)
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648. (h)
Osborne Electric Co., 712 S. E. Hawthorne, Portland 14, Ore. (h)
Partridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England. (h)
Peerless Electrical Div. of Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif. (h)
POLYPHASE INSTRUMENT CORP., East Fourth St., Bridgeport, Pa. ADV. PG. 697. (h)
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607. (h)
Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y. (h)
Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn. (h)
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill. (h)
Servomechanisms, Inc., 12500 Aviation Blvd., Hawthorne, Calif. (h)
SIGNAL TRANSFORMER CO., 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667. (h)
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295. (h)
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739. (h)
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y. (h)
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281. (h)
Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. (h)
Thordarson-Melissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y. (h)
TOROTEL, INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539. (h)
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405. (h)

Transformer Engineers, 161 E. California St., Pasadena 1, Calif. (h)
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24. (h)
 Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif. (h)
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover. (h)
 Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa. (h)

TRANSFORMERS—Precision Voltage Dividing

AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300. (h)
ARNOLD MAGNETICS CORP., 4613 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 553. (h)
Atlas Coil, Inc., 63 Main St., Ansonia, Conn. (h)
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600. (h)
Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 50. (h)
California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139. (h)
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470. (h)
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572. (h)
Coast Coil Co., 5333 W. Washington Blvd., Los Angeles 16, Calif. (h)
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118. (h)
DEL ELECTRONICS CORP., 521 Homestead Ave., Mt. Vernon, N. Y. ADV. PG. 678. (h)
Electro-Tech Pacific, Santa Barbara Airport, P. O. Box 455, Goleta, Calif. (h)
Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind. (h)
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460. (h)
GERTSCH PRODUCTS, INC., 3211 S. La Cienega Blvd., Los Angeles 16, Calif. ADV. PG. 684. (h)
Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif. (h)
Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
Hadley Co., Inc., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455. (h)
Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y. (h)
Liton Industries, Beverly Hills, Calif. (h)
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646. (h)
Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. (h)
MAGNETICO, INC., 18 Scudder Ave., Northport, N. Y. ADV. PG. 617. (h)
NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676. (h)
New York Transformer Co., Inc., Third Ave., Alpha, N. J. (h)
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648. (h)
Peerless Electrical Products Div., Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif. (h)
PHYSICS RESEARCH LABS., P. O. Box 555, Hempstead, N. Y. ADV. PG. 682. (h)
POLYPHASE INSTRUMENT CORP., East Fourth St., Bridgeport, Pa. ADV. PG. 697. (h)
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607. (h)
Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y. (h)
Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill. (h)
SIGNAL TRANSFORMER CO., 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667. (h)
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 294, 295. (h)
Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. (h)
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739. (h)
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549. (h)
Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y. (h)
Thermador Electric Mfg. Co., 521 S. Boyle Ave., Los Angeles 58, Calif. (h)
Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 405. (h)
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24. (h)
Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif. (h)
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover. (h)
Waco, Inc., 2032 Broadway, Santa Monica, Calif. (h)
Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa. (h)

TRANSFORMERS—Printed Circuit

ACF Electronics, 800 N. Pitt St., Alexandria, Va. (h)
ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 378. (h)
Acro Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind. (h)
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300. (h)
ARNOLD MAGNETICS CORP., 4613 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 553. (h)
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600. (h)
Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn. (h)
Barwood Electronics, Inc., 921 E. Broadway, Glendale 5, Calif. (h)
Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150. (h)
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139. (h)
Central Coil Co., 1720 N. Luetz St., Indianapolis 22, Ind. (h)
Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill. (h)
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470. (h)
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572. (h)
CHICAGO STANDARD TRANSFORMER CORP., 3521 Addison St., Chicago, Ill. ADV. PG. 466, 467. (h)
Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio. (h)
Clifton Mfg. Co., Inc., 20 N. Springfield Rd., Clifton Heights, Pa. (h)
Coilcraft, Inc., Cary, Ill. (h)
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118. (h)
Crest Transformer Corp., 1834-36 W. North Ave., Chicago 22, Ill. (h)
DEL ELECTRONICS CORP., 521 Homestead Ave., Mt. Vernon, N. Y. ADV. PG. 678. (h)
Dinion Coil Co., Inc., Caledonia, N. Y. (h)
Electrical Windings, Inc., 2015 N. Kolnar St., Chicago 29, Ill. (h)
Electro-Winders Co., Inc., 854 W. Front St., Covina, Calif. (h)
Ensign Coil Co., 2561 S. Pulaski Rd., Chicago, Ill. (h)
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620. (h)
Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio. (h)
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460. (h)
General Coil Products Corp., 43 Roselle St., Mineola, N. Y. (h)
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12. (h)
Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif. (h)
Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich. (h)
Hadley Co., Inc., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)
Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y. (h)
Liton Industries, Beverly Hills, Calif. (h)
Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. (h)
Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill. (h)
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646. (h)
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif. (h)
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676. (h)
New York Coil Co., Phoenixville 12, Pa. (h)
New York Transformer Co., Inc., Third Ave., Alpha, N. J. (h)
NORTH HILLS ELECTRIC CO., INC., 402 Sagamore Ave., Mineola, N. Y. ADV. PG. 428. (h)
Oakton Electric Co., Tinley Park, Ill. (h)
Oxford Electric Corp., 3911 S. Michigan Ave., Chicago 15, Ill. (h)
Partridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England. (h)
Peerless Electrical Div. of Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif. (h)
POLYPHASE INSTRUMENT CORP., East Fourth St., Bridgeport, Pa. ADV. PG. 697. (h)
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607. (h)
Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y. (h)
Ransom Research, Box 382, San Pedro, Calif. (h)
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251. (h)
Skysweeper Inc., McHenry, Ill. (h)
Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. (h)
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739. (h)
Telex, Inc., Telex Park, St. Paul 1, Minn. (h)

Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y. (h)
TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281. (h)
Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y. (h)
TOROTEL, INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539. (h)
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24. (h)
Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif. (h)
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover. (h)
Valor Electronic Components Co., 5808 Marilyn Ave., Culver City, Calif. (h)
Vokar Corp., 7300 Huron River Drive, Dexter, Mich. (h)
Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa. (h)
Wheeler Insulated Wire Co., Inc., The Div. of the Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn. (h)

TRANSFORMERS—Pulse

ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 378. (h)
Acro Products Co., 369 Shurs Lane, Philadelphia 28, Pa. (h)
Acro Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind. (h)
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. (h)
Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J. (h)
Airdesign Inc., 241 Fairfield Ave., Upper Darby, Pa. (h)
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300. (h)
Aladdin Electronics, A Div. of Aladdin Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn. (h)
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442. (h)
Alto Scientific Co., 855 Commercial St., Palo Alto, Calif. (h)
AMP INC., CHEMICALS & DIELECTRICS DIV., 155 Park St., Elizabethtown, Pa. ADV. PG. 255. (h)
Applied Radiation Corp., 1210 Spring Brook Rd., Walnut Creek, Calif. (h)
Atlas Coil, Inc., 63 Main St., Ansonia, Conn. (h)
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600. (h)
Audio Development Co., 2833 13th Ave. S., Minneapolis 7, Minn. (h)
Ballastran Corp., Fort Wayne, Ind. (h)
Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
Berkshire Laboratories, 580 Bank Village, Greenville, N. H. (h)
BREW & CO., INC., RICHARD D., Concord, N. H. ADV. PG. 524. (h)
Brubaker Mfg. Co., Inc., 9151 Exposition Drive., Los Angeles 34, Calif. (h)
Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia 23, Pa. (h)
C B C Electronics Co., Inc., 2601 N. Howard St., Philadelphia 33, Pa. (h)
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 50. (h)
California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
Campbell Co., Inc., Colvin, Westville Ave., Danbury, Conn. (h)
Carad Corp., 2850 Bay Rd., Redwood City, Calif. (h)
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139. (h)
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470. (h)
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572. (h)
CHICAGO STANDARD TRANSFORMER CORP., 3521 Addison St., Chicago, Ill. ADV. PG. 466, 467. (h)
Clifton Mfg. Co., Inc., 20 N. Springfield Rd., Clifton Heights, Pa. (h)
Coilcraft, Inc., Cary, Ill. (h)
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118. (h)
Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J. (h)
Dielectron Div., The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif. (h)
DIETZ DESIGN MFG. CO., Grandview 6, Mo. ADV. PG. 595. (h)
Dinion Coil Co., Inc., Caledonia, N. Y. (h)
Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill. (h)
DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J. (h)
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 63. (h)
Electro Winders Co., Inc., 854 W. Front St., Covina, Calif. (h)
Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y. (h)
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 674. (h)
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 233-235. (h)
Essex Electronics, Berkeley Heights, N. J. (h)
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433. (h)
Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind. (h)

Foster Transformer Co., 3820 Colerian Ave., Cincinnati 23, Ohio. (h)
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460. (h)
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12 (h)
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif. (h)
 Gramer-Halderson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
 Gudeman Co., 340 W. Huron St., Chicago 10, Ill. (h)
 Hadley Co., Inc., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y. (h)
 Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J. (h)
INDUSTRIAL TRANSFORMER CO., Gouldsboro, Pa. ADV. PG. 454, 455. (h)
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md. (h)
 K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. (h)
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. (h)
 Keystone Products Co., 904-6 23rd St., Union City, N. J. (h)
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358. (h)
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y. (h)
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485. (h)
 Litton Industries, Beverly Hills, Calif. (h)
 Luther Electronics Mfg. Co., 5728 W. Washington Blvd., Los Angeles 16, Calif. (h)
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
 Magnadyne Co., 84 S. Water St., Port Chester, N. Y. (h)
 Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind. (h)
MAGNETIC RESEARCH CORP., 3160 W. El Segundo Blvd., Hawthorne, Calif. ADV. PG. 292-293. (h)
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. & Hobson Blvd., Easton, Pa. (h)
 Magnetics Research Co., Cor. Grove St., & E. Post Rd., White Plains, N. Y. (h)
 Melectronics, 1372-74 E. Walnut St., Pasadena, Calif. (h)
MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646. (h)
 Mid-West Coil & Transformer Co., 1642 N. Halstead St., Chicago 14, Ill. (h)
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. (h)
 Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N. Hopkins, Minn. (h)
 Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J. (h)
MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. ADV. PG. 527. (h)
 Mystic Transformers, Inc., 63 Swanton St., Winchester, Mass. (h)
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 369, 370. (h)
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif. (h)
NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676. (h)
 New York Coil Co., Phoenixville 12, N. Y. (h)
 New York Transformer Co., Inc., Third Ave., Alpha, N. J. (h)
 Nothelfer Winding Labs, Inc., P. O. Box 455, Trenton, N. J. (h)
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 648. (h)
 Osborne Electric Co., 712 S. E. Hawthorne, Portland 14, Ore. (h)
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 268. (h)
 Patridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England. (h)
 Pearson Electronics, 1200 Bryant St., Palo Alto, Calif. (h)
POLYPHASE INSTRUMENT CORP., East Fourth St., Bridgeport, Pa. ADV. PG. 697. (h)
 Power Industries Co., 2611 Indiana Ave., Chicago 16, Ill. (h)
PULSE ENGINEERING, INC., 2657 Spring St., Redwood City, Calif. ADV. PG. 607. (h)
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill. (h)
 Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. Y. (h)
 Ransom Research, Box 382, San Pedro, Calif. (h)
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251. (h)
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 522. (h)
 Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill. (h)
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill. (h)
SIGNAL TRANSFORMER CO., 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667. (h)
 Sprague Electric Co., 125 Marshall St., North Adams, Mass. (h)
 Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill. (h)
 Standard Winding Corp., 44-62 Johnes St., Newburgh, N. Y. (h)
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. (h)

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York. ADV. PG. 733-739. (h)
TECHNITROL ENGINEERING CO., 1952 E. Allegheny Ave., Philadelphia 34, Pa. ADV. PG. 509. (h)
 Telex, Inc., Telex Park, St. Paul 1, Minn. (h)
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y. (h)
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. (h)
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
 Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y. (h)
TOROTEL, INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539. (h)
 Transformer Engineers, 161 E. California St., Pasadena 1, Calif. (h)
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24. (h)
 Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif. (h)
 Trenton Transformer Corp., Box 568B, Trenton, N. J. (h)
TRESCO, INC., 3824 Terrace St., Philadelphia 28, Pa. ADV. PG. 687. (h)
TRIAD TRANSFORMER CORP., SUB. OF LITTON INDUSTRIES, 4055 Redwood Ave., Venice, Calif. ADV. PG. 242. (h)
UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second cover. (h)
 Utrad, Inc., 305 N. Briant, Huntington, Ind. (h)
 Valor Electronic Components Co., 5808 Marilyn Ave., Culver City, Calif. (h)
 Waco, Inc., 2032 Broadway, Santa Monica, Calif. (h)
 Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa. (h)
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216. (h)
 Wheeler Insulated Wire Co., Inc., The Div. of the Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn. (h)

TRANSFORMERS—r-f and i-f

Ace Coil & Electronics Co., 912 Lincoln Highway, Metuchen, N. J. (h)
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. (h)
 Aerovox Corp., Pacific Coast Div., 2724 So. Peck Rd., Monrovia, Calif. (h)
 Aladdin Electronics, A Div. of Alladdin Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn. (h)
 Atlas Coil, Inc., 63 Main St., Ansonia, Conn. (h)
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600. (h)
AUTOMATIC COIL CO., 415 Bedford Ave., Brooklyn, N. Y. ADV. PG. 675. (h)
 Automatic Mfg. Div. of General Instrument Corp., 65 Gouverneur St., Newark, N. J. (h)
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. (h)
 Caddell-Burns Mfg. Co., 40 E. Second St., Mineola, N. Y. (h)
 Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif. (h)
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 150. (h)
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139. (h)
 Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind. (h)
 Coilcraft, Inc., Cary, Ill. (h)
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y. (h)
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 589. (h)
 Colman Tool & Machine Co., P. O. Box 7026, Amarillo, Texas. (h)
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118. (h)
 Condor Radio Mfg. Co., 4068 E. Paseo Grande, Tucson 12, Ariz. (h)
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill. (h)
 Delevan Electronics Corp., Reycroft Campus, East Aurora, N. Y. (h)
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 595. (h)
 Electro-Winders Co., Inc., 854 W. Front St., Covina, Calif. (h)
 Ensign Coil Co., 2561 S. Pulaski Rd., Chicago, Ill. (h)
 Essex Electronics, Berkeley Heights, N. J. (h)
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 433. (h)
 Fugle-Miller Laboratories, Inc., 301 Central Ave., Clark, N. J. (h)
 General Coil Products Corp., 43 Roselle St., Mineota, N. Y. (h)
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif. (h)
 Gray & Kuhn, Inc., 20 Railroad Ave., Roslyn Heights, N. Y. (h)
 Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill. (h)
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y. (h)
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 590. (h)
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455. (h)
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y. (h)
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14 Mass. ADV. PG. 358. (h)

Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y. (h)
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485. (h)
 Leonard Electric Products Co., Inc., 67 Thirty-Fourth St., Brooklyn 32, N. Y. (h)
 Lymnar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa. (h)
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
 Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind. (h)
 Marine View Electronics, Inc., 28 Main St., White Plains, N. Y. (h)
 Merit Coil & Transformer Corp., 4427 N. Glark St., Chicago 40, Ill. (h)
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass. (h)
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif. (h)
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. (h)
 Moran Electronic Components, Inc., 7660 Woodbury Dr., Silver Spring, Md. (h)
 Muter Co., 1255 S. Michigan Ave., Chicago 5, Ill. (h)
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif. (h)
NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647. (h)
 National Co., Inc., 61 Sherman St., Malden 48, Mass. (h)
NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676. (h)
 New York Coil Co., Phoenixville 12, Pa. (h)
NORTH HILLS ELECTRIC CO., INC., 402 Sagamore Ave., Mineola, N. Y. ADV. PG. 428. (h)
 Nothelfer Winding Labs, Inc., P. O. Box 455, Trenton, N. J. (h)
 Oaktron Electric Co., Tintley Park, Ill. (h)
POLYPHASE INSTRUMENT CORP., East Fourth St., Bridgeport, Pa. ADV. PG. 697. (h)
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill. (h)
 Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. Y. (h)
 Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 14, Calif. (h)
 Raypat, Inc., 7800 W. Addison St., Chicago, Ill. (h)
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 522. (h)
 Reliance Electric Co., 8233 S. Princeton Ave., Chicago 20, Ill. (h)
 Sage-Craft, Inc., Norwich, N. Y. (h)
 Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass. (h)
SIoux RADIO PRODUCTS, 100 Douglas Ave., Yankton, S. D. ADV. PG. 538. (h)
 Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill. (h)
 Standard Winding Corp., 44-62 Johnes St., Newburgh, N. Y. (h)
 Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y. (h)
 Summit Coil Co., 4 Claremont Rd., Bernardsville, N. J. (h)
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739. (h)
 Tele Coil Co., Inc., 2733 Saunders St., Camden 5, N. J. (h)
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
TOROTEL, INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539. (h)
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 220. (h)
 Valor Electronic Components Co., 5808 Marilyn Ave., Culver City, Calif. (h)
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 3, Calif. (h)
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564. (h)
 Vokar Corp., 7300 Huron River Dr., Dexter, Mich. (h)
 Warsaw Coil Co., Warsaw, Ind. (h)
 Western Coil Products Co., 969 Commercial St., Palo Alto, Calif. (h)
 Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo. (h)

TRANSFORMERS—Subsonic See TRANSFORMERS—Audio (3)

TRANSFORMERS—TV Deflection

ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600. (h)
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139. (h)
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470. (h)
CHICAGO STANDARD TRANSFORMER CORP., 3521 Addison St., Chicago, Ill. ADV. PG. 466, 467. (h)
 Cinema-Television Ltd., Worsley Bridge Rd., London S. E. 26, England. (h)
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill. (h)
 Foster Transformer Co., 3820 Colerian Ave., Cincinnati 23, Ohio. (h)
 Gramer-Halderson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
 Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill. (h)
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y. (h)

Leonard Electric Products Co., Inc., 67 Thirty Fourth St., Brooklyn 32, N. Y.
 Litton Industries, Beverly Hills, Calif.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
 NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
 NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676.
 Penn Tran Corp., Bellefonte, Pa.
 RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
 Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
 TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Television Laboratories, Inc., Mill St., Wauconda, Ill.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y.
 Todd-Tran Corp., 156 Gramatan Ave., Mt. Vernon, N. Y.
 Transformer Engineers, 161 E. California St., Pasadena 1, Calif.
 TRIAD TRANSFORMER CORP., SUB. OF LITTON INDUSTRIES, 4055 Redwood Ave., Venice, Calif. ADV. PG. 242.

TRANSFORMERS—TV Impedance Matching

ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
 Blonder-Tongue Laboratories, Inc., 9-25 Alling St., Newark 2, N. J.
 CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
 Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
 CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 470.
 Cinema-Television, Ltd., Worsley Bridge Rd., London S.E. 26, England.
 Coilcraft, Inc., Cary, Ill.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 40, Ill.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Dane Electronic Labs., Inc., P. O. Box #209, Salem, Mass.
 Dielectric Products Engineering Co., Inc., Raymond, Maine.
 Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill.
 Ensign Coil Co., 2561 S. Pulaski Rd., Chicago, Ill.
 Entron Inc., 4902 Lawrence St., Bladenburg, Md.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
 MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
 Mosley Electronics, Inc., 8622 St. Charles Rock Rd., St. Louis 14, Mo.
 NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
 NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676.
 Omega Electronics Co., 355 Atlantic Ave., Brooklyn 17, N. Y.
 Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
 Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
 Sage-Craft, Inc., Norwich, N. Y.
 Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
 Standard Winding Corp., 44-62 Johnes St., Newburgh, N. Y.
 TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.

Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y.
 Utrad, Inc., 305 N. Briant, Huntington, Ind.

TRANSFORMERS—Toroidal
See TOROIDS

TRANSFORMERS—Ultrasonic

Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
 AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300.
 ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
 Atlas Coil, Inc., 63 Main St., Ansonia, Conn.
 ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
 Audio Development Co., 2833 13th Ave., S. Minneapolis 7, Minn.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
 CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
 Central Transformer Co., 919 W. Jackson Blvd., Chicago, Ill.
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
 Dinion Coil Co., Inc., Caledonia, N. Y.
 ELECTRO ENGINEERING WORKS, 401 Preda St., San Leandro, Calif. ADV. PG. 512.
 EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 674.
 FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
 FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
 Hadley Co., Inc., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif.
 INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 454, 455.
 INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Mag-Electric Products, Inc. 12822 Yukon Ave., Hawthorne, Calif.
 McKenna Laboratories, Santa Monica 6, Calif.
 MICROTRAN CO., INC., 145 E. Mineola Ave., Valley Stream, N. Y. ADV. PG. 646.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
 Mystic Transformers, Inc., 63 Swanton St., Winchester, Mass.
 N.Y. Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 NATIONAL COIL CO., P. O. Box 1237, Sheridan, Wyo. ADV. PG. 647.
 NEW ENGLAND TRANSFORMER CO., 47 McGrath Highway, Somerville, Mass. ADV. PG. 676.
 New York Transformer Co., Inc., Third Ave., Alpha, N. J.
 Partridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England.
 Peerless Electric Products Div., Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif.
 Qutron Transformer Corp., 525 Broadway, New York 12, N. Y.
 RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250-251.
 Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
 SIGNAL TRANSFORMER CO., 902 Coney Island Ave., Brooklyn 18, N. Y. ADV. PG. 667.
 SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 230, 231.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City 2, N. Y.
 SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
 TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y.
 TOROTEL INC., 11505 Belmont Ave., Hickman Mills, Mo. ADV. PG. 539.
 TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 21-24.
 Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
 UNITED TRANSFORMER CORP., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa.

TRANSISTORS

1. Germanium
2. Germanium, Power
3. Silicon
4. Silicon, Power

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. 1-2. ADV. PG. 290, 291.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J. 3-4.
 CBS-Hytron Div., Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass. 1-2.

CENTRALAB DIV., GLOBE-UNION, INC., 914Y E Keefe Ave., Milwaukee 1, Wis. 1. ADV. PG. 419.
 Clevite Transistor Products Div. of Clevite Corp., 241-257 Crescent St., Waltham 54, Mass. 1-2.
 Delco Radio Division, GM Corp., 700 E. Firmin St., Kokomo, Ind. 2.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa. 1.
 GENERAL ELECTRIC CO., SEMI-CONDUCTOR PRODUCTS DEPT., Electronics Park, 1224 W. Genessee St., Syracuse, N. Y. 1-3. ADV. PG. 19.
 General Electric Co., Ltd. of England, 80 Shore Rd., Port Washington, N. Y. 1-2.
 GENERAL TRANSISTOR CORP., 130-11 90th Ave., Richmond Hill 18, N. Y. 1-2. ADV. PG. 243.
 HOFFMAN SEMICONDUCTOR DIV. OF HOFFMAN ELECTRONICS CORP., 930 Pitner Ave., Evanston, Ill. 4. ADV. PG. 443.
 HUGHES PRODUCTS DIV. OF HUGHES AIRCRAFT CO., Los Angeles 45, Calif. 1. 340-343.
 LANDSDE TUBE CO. DIV. OF PHILCO CORP., Church Rd., Lansdale, Pa. 1-2-3. ADV. PG. 51.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind. 2.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn. 1.
 Minneapolis-Honeywell Regulator Co., Semiconductor Div., 2753 Fourth Ave. S., Minneapolis 8, Minn. 2.
 MOTOROLA, INC., SEMICONDUCTOR PRODUCTS DIV., 5005 E. McDowell Rd., Phoenix, Ariz. 1-2. ADV. PG. 639.
 Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif. 1-2.
 Qutron Semi-Conductor Corp., 525 Broadway, New York 12, N. Y. 1-2-3-4.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. 1. ADV. PG. 453, Third & Fourth Covers.
 RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. 1. ADV. PG. 453, Third & Fourth Covers.
 Radio Development & Research Corp., 100 Pennsylvania Ave., Paterson 3, N. J. 1-3-4.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube, Operations, 55 Chapel St., Newton 58, Mass. 1-2-3-4.
 RED BANK DIVISION, BENDIX AVIATION CORP., Eatontown, N. J. 2. ADV. PG. 332.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England. 1.
 SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. 1. ADV. PG. 733-739.
 TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. 2-4. ADV. PG. 549.
 TEXAS INSTRUMENTS INCORPORATED, 6000 Lemmon Ave., Dallas 9, Texas. 1-2-3-4. ADV. PG. 280, 281.
 TRANSTRON ELECTRONIC CORP., 168 Albion St., Wakefield, Mass. 1-2-3-4. ADV. PG. 176, 177.
 TUNG-SOL ELECTRIC, INC., 95 Eighth Ave., Newark 4, N. J. 1-2. ADV. PG. 361.
 United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass. 3-4.
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. 1-2. ADV. PG. 205-216.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira, N. Y. 1-2.

TRANSMISSION LINES

See CABLE—Coaxial or
MICROWAVE ACCESSORIES—
Waveguides

TRANSMITTERS—Aircraft

Aeronautical Communications Equipment, Inc., S. W. 37th Ave., Miami 33, Fla.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.
 AIRCRAFT RADIO CORP., Bonton, N. J. ADV. PG. 495.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore, Md.
 Collins Radio Co., Cedar Rapids, Iowa.
 FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
 Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.
 National Aeronautical Corp., Commerce Drive, Ft. Washington Industrial Park, Fort Washington, Pa.
 Navigation Electronics Corp., 11616 Hart St., North Hollywood, Calif.
 Parsons Co., Ralph M., Electronics Div., 151 S. DeLacey Ave., Pasadena, Calif.
 Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York, N. Y. ADV. PG. 733-739.

Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

TRANSMITTERS—Amateur

American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
Collins Radio Co., Cedar Rapids, Iowa.
Creative Electronics Corp., 94 Lincoln Ave., Stamford, Conn.
Gonsset Co., 801 S. Main St., Burbank, Calif.
Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Johnson Co., E. F., Waseca, Minn.
Lettine Radio Mfg. Co., 62 Berkeley St., Valley Stream, N. Y.
Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Mohawk Electronic Research Labs, Inc., Box 126-A, RD 4, Amsterdam, N. Y.
Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
Multi-Products Co., 21470 Coolidge Hwy., Oak Park, Mich.
Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
Technical Materiel Corp., P.O. Box 142, Mamaroneck, N. Y.
Valley Engineering Co., P.O. Box 2, Los Alamos, N. M.
World Radio Laboratories, 3415 W. Broadway, Council Bluffs, Iowa.

TRANSMITTERS—Broadcast

Collins Radio Co., Cedar Rapids, Iowa.
Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Texas.
Gates Radio Co., Quincy, Ill.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
Q. R. K. Electronic Products, 445 N. Circle Drive, Fresno 4, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 434.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.

TRANSMITTERS—Color Television

Adler Electronics, Inc., 1 Lefevre Lane, New Rochelle, N. Y.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 434.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

TRANSMITTERS—Direction Finding

Aeronautical Communications Equipment, Inc., S. W. 37th Ave., Miami 33, Fla.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
Collins Radio Co., Cedar Rapids, Iowa.
FEDERAL TELEPHONE & RADIO CO., 68 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.

SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.

TRANSMITTERS—f-m

Budelman Radio Corp., 376 Fairfield Ave., Stamford, Conn.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
CUBIC CORP., 5575 Kearney Villa Rd., San Diego 11, Calif. ADV. PG. 380, 381.
Gates Radio Co., Quincy, Ill.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
Marconi's Wireless Telegraph Co., Ltd., 13/26 Beaver St., New York 4, N. Y.
National Electronics Laboratories, Inc., 1713 Kalorama Rd., N. W., Washington 9, D. C.
Parsons Co., Ralph M., Electronics Div., 151 S. DeLacey Ave., Pasadena, Calif.
Pye Telecommunications, Ltd., Newmarket Rd., Cambridge, England.
Q. R. K. Electronic Products, 445 N. Circle Drive, Fresno 4, Calif.
Radiation Inc., Melbourne, Fla.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Cover.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 107.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.
Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia 4, Pa.
Telemetering Associates, 6419 Indigo St., Houston, Texas.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

TRANSMITTERS—Facsimile

Acme Teletronix Div. of NEA Service, Inc., West Third & Lakeside, Cleveland 13, Ohio.
Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 566.
Alden Systems, Inc., Alden Research Center, Westboro, Mass.
Canadian Marconi Co., 2442 Trenton Aves., Montreal 16, Quebec.
Collins Radio Co., Cedar Rapids, Iowa.
General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
L. & O. Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
Muirhead & Co. Ltd., Beckenham, Kent, England.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 468.

TRANSMITTERS—Fixed Frequency

Aeronautical Communications Equipment, Inc., S. W. 37th Ave., Miami 33, Fla.
Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.
Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
Babcock Radio Engineering Co., P. O. Box 3097, Van Nuys, Calif.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
Collins Radio Co., Cedar Rapids, Iowa.
Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
Dollar Co., Robert, Communications Equipment Div., 50 Drumm St., San Francisco 11, Calif.
Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
Gates Radio Co., Quincy, Ill.
Gyro Electronics Co., 325 Canal St., New York, N. Y.
Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill.
Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.

Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
Motorola Communications & Electronics, Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
Parsons Co., Ralph M., Electronics Div., 151 S. DeLacey Ave., Pasadena, Calif.
Pye Telecommunications, Ltd., Newmarket Rd., Cambridge, England.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 107.
Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.
Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.
Stromberg-Carlson Co. Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Teletron Co., The, Bldg. #9, Broward County International Airport, Fort Lauderdale, Fla.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

TRANSMITTERS—Fixed Station Communication

Aeronautical Communications Equipment, Inc., S. W. 37th Ave., Miami 33, Fla.
Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.
Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bellair Electronics, Inc., 62 White St., Red Bank, N. J.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Budelman Radio Corp., 376 Fairfield Ave., Stamford, Conn.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Rosedale Aves., Morristown, N. J. ADV. PG. 632.
Collins Radio Co., Cedar Rapids, Iowa.
Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
Dollar Co., Robert, Communications Equipment Div., 50 Drumm St., San Francisco 11, Calif.
Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
Gates Radio Co., Quincy, Ill.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
Lettine Radio Mfg. Co., 62 Berkeley St., Valley Stream, N. Y.
Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
MULLARD OVERSEAS, LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 560.
Multi-Products Co., 21470 Coolidge Highway, Oak Park, Mich.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 107.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.
Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

TRANSMITTERS—Loran

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Sperry Gyroscope Co., Div of Sperry Rand Corp., Great Neck, N. Y.

TRANSMITTERS—Marine

Applied Electronics Co., Inc., 213 E. Grand Ave., South San Francisco, Calif.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Collins Radio Co., Cedar Rapids, Iowa.
 Gray Radio Co., Inc., 501 Forest Hill Blvd., West Palm Beach, Fla.
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
 Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson American Corp., 25 W. 43rd St., New York 36, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Jefferson, Inc., Ray, 40 E. Merrick Rd., Freeport, N. Y.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Navigation Electronics Corp., 11616 Hart St., North Hollywood, Calif.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Pearce-Simpson, Inc., 3023 Coral Way, Miami 34, Fla.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Standard Radio Corp., 3050 W. 21st St., Brooklyn 24, N. Y.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.

TRANSMITTERS—Microwave See MICROWAVE ACCESSORIES

TRANSMITTERS—Multiplex

BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
 Collins Radio Co., Cedar Rapids, Iowa.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 Gates Radio Co., Quincy, Ill.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 National Electronics Laboratories, Inc., 1713 Kalorama Rd., N.W., Washington 9, D. C.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.

TRANSMITTERS—Portable and Mobile Radio-Telephone

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
 Applied Electronics Co., Inc., 213 E. Grand Ave., South San Francisco, Calif.
 Avia Products Co., 7266 Beverly Rd., Los Angeles 36, Calif.
 Avionex Electronics Corp., 19855 Vanowen, North Hollywood, Calif.
 Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
 Collins Radio Co., Cedar Rapids, Iowa.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
 Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Motorola Communications & Electronics, Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 560.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

TRANSMITTERS—Pulse Time Modulation

AIRCOM INC., 354 Main St., Winthrop 52, Mass. ADV. PG. 652.
 Bristol Co., The, P. O. Box 1790 FBG, Waterbury 20, Conn.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Parsons Co., Ralph M., Electronics Div., 151 S. DeLacey Ave., Pasadena, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

TRANSMITTERS—Radar

AIRBORNE INSTRUMENTS LABS., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 253.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 380, 381.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
 Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
 Levinthal Electronic Products, Inc., 3180 Hanover St., Stanford Industrial Park, Palo Alto, Calif.
 Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
 Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
 Standard Telephones & Cables, Ltd., Connaught House 63 Aldwych, London, W.C.2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Telephonics Corp., Park Ave., Huntington, N. Y.

TEXAS INSTRUMENTS INCORPORATED., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 280, 281.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

TRANSMITTERS—Radio Range

Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Maryland Electronic Mfg. Corp., College Park, Md.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
 Stromberg-Carlson Co. Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

TRANSMITTERS—Railroad

Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., INDUSTRIAL PRODUCTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

TRANSMITTERS—Single Side Band

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
 Collins Radio Co., Cedar Rapids, Iowa.
 Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 General Electric Co., Technical Products, Electronics Park, Syracuse, N. Y.
 Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INSTANT CIRCUITS DIV. OF ALFRED W. BARBER LABS., 32-44 Francis Lewis Blvd., Flushing, N. Y. ADV. PG. 660.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Johnson Co., E. F. Waseca, Minn.
 Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Marconi's Wireless Telegraph Co., Ltd., 23-25 Beaver St., New York 4, N. Y.
 Mohawk Electronic Research Labs., Inc., Box 126-A RD 4, Amsterdam, N. Y.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
 Sorensen Industrial Electronic Co., Route 10, Dover, N. J.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

TRANSMITTERS—Television

Adler Electronics, Inc., 1 Lefevre Lane, New Rochelle, N. Y.
 DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
 Electronics Development Co., Inc., 3743 N. Cahuenga Blvd., North Hollywood, Calif.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.

Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
 Marconi's Wireless Telegraph Co., Ltd., 23-25 Beaver St., New York 4, N. Y.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 434.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.

TRANSMITTERS—uhf

Adler Electronics, Inc., 1 Lefevre Lane, New Rochelle, N. Y.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Babcock Radio Engineering Co., P. O. Box 3097, Van Nuys, Calif.
 Budelman Radio Corp., 376 Fairfield Ave., Stamford, Conn.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
 Collins Radio Co., Cedar Rapids, Iowa.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Texas.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Gyro Electronics Co., 325 Canal St., New York, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
 Levinthal Electronic Products, Inc., 3180 Hanover St., Stanford Industrial Park, Palo Alto, Calif.
 Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 107.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 434.
SIERRA ELECTRONIC CORP., 3885 Bohannon Drive, Menlo Park, Calif. ADV. PG. 56, 57.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

TRANSMITTERS—vhf

Adler Electronics, Inc., 1 Lefevre Lane, New Rochelle, N. Y.
 Aeronautical Communications Equipment, Inc., S. W. 37th Ave., Miami 33, Fla.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6527, Raleigh, N. C.
 Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 495.
 Avia Products Co., 7266 Beverly Rd., Los Angeles 36, Calif.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Budelman Radio Corp., 376 Fairfield Ave., Stamford, Conn.

Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
 Collins Radio Co., Cedar Rapids, Iowa.
 Communications Co., 300 Greco Ave., Coral Gables 34, Fla.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Cossor (Canada), Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Dollar Co., Robert, Communications Equipment Div., 50 Drumm St., San Francisco 11, Calif.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 Johnson Co., E. F., Waseca, Minn.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Lettine Radio Mfg. Co., 62 Berkley St., Valley Stream, N. Y.
 Mack Electronics, A Div. of Mack Trucks, Inc., Plainfield, N. J.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.
 Mohawk Electronic Research Labs., Inc., Box 126-A, RD 4, Amsterdam, N. Y.
 Motorola Communications & Electronics, Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 National Aeronautical Corp., Commerce Drive, Ft. Washington Industrial Park, Fort Washington, Pa.
 National Electronics Laboratories, Inc., 1713 Kalorama Rd., N. W., Washington 9, D. C.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 107.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 434.
 Scantlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York, N. Y. ADV. PG. 733-739.
TELECHROME MFG. CORP., 28 Ranick Drive, Amityville, N. Y. ADV. PG. 417.
 Telectron Co., The, Bldg. #9, Broward County International Airport, Fort Lauderdale, Fla.
 Telemetering Associates, 6419 Indigo St., Houston, Texas.
 Telephonics Corp., Park Ave., Huntington, N. Y.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 564.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Missouri.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.

TRANSMITTERS—vhf Omni Range

Collins Radio Co., Cedar Rapids, Iowa.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 485.
 Maryland Electronics Mfg. Corp., College Park, Md.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

TRAPS—Wave

Admittance-Namco Corp., Farmingdale, N. Y.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
CLEGG LABORATORIES DIV. OF CLEGG, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 632.
JERROLD ELECTRONICS CORP., 23rd & Chestnut Sts., Philadelphia 3, Pa. ADV. PG. 574.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Mosley Electronics, Inc., 8622 St. Charles Rock Rd., St. Louis 14, Mo.
 Sage-Craft, Inc., Norwich, N. Y.
SPENCER-KENNEDY LABS., INC., 1318 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 304.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.

TREATING—Fungus & Moisture Proof

Electronic Service Corp., 2904 Birch St., Franklin Park, Ill.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 614.

TRIMMERS—Capacitors

See CAPACITORS

TUBE COOLING UNITS

See also BLOWERS

AMERICAN BLOWER DIV. OF AMERICAN STANDARD, Detroit 32, Mich. ADV. PG. 352, 353.
BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
DYNAMIC AIR ENGINEERING, INC., 7412 Maie Ave., Los Angeles 1, Calif. ADV. PG. 686.
EASTERN INDUSTRIES, INC., 100 Skiff St., Hampden, Conn. ADV. PG. 612.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.

TUBE PARTS

Anodes, Carbon

Helwig Co., 2544 N. 30th St., Milwaukee 10, Wis.
 National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

Anodes, Gold

American Platinum Works, N.J.R.R. Ave. at Oliver St., Newark 5, N. J.
 Bishop & Co., J., Platinum Works, Malvern, Pa.
 Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
GENERAL FINDINGS & SUPPLY CO., INDUSTRIAL DIV., Attleboro, Mass. ADV. PG. 327.
 Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 328.
 Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 588.
 Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
 Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

Anodes, Graphite

National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

Anodes, Metal

ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 62.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
 Farnsteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
 Goat Co., Inc., Fred 308 Dean St., Brooklyn 17, N. Y.
 Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., Components Div., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. J. ADV. PG. 86, 87.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 670.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.
 Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
SUPERIOR TUBE CO., 2504 Germantown Pike, Norristown, Pa. ADV. PG. 84, 85.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 103.

Anodes, Silver

American Platinum Works, N.J.R.R. Ave. at Oliver St., Newark 5, N. J.
 Bishop & Co., J., Platinum Works, Malvern, Pa.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
GENERAL FINDINGS & SUPPLY CO., INDUSTRIAL DIV., Attleboro, Mass. ADV. PG. 327.
 Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 328.
 Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
 Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
 Wildberg Bros., Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

Base Pins

American Brass Co., 414 Meadow St., Waterbury 20, Conn.
ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 62.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 615.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 609.
 Stone City Machine & Tool Co., Inc., P.O. Box 351, 1206 Seventh St., Bedford, Ind.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 103.

Bases

ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 567.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
 British Electronics Sales Co., Inc., Oakland Garden Station, Flushing 64, N. Y.
CENTRALAB DIV., GLOBE-UNION INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 419.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 131-133.
 Diamonite Products Mfg. Co., Div. of U. S. Ceramic Tile Co., 1232 Cleveland Ave., N. W., Canton, Ohio.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 609.
 Faber Mfg. Co., Merle, 35 Stillman St., San Francisco 7, Calif.
 Isolantite Manufacturing Corp., Stirling, N. J.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 140, 141.
 Owens-Illinois, Closure & Plastics Div., P. O. Box 1035, Toledo 1, Ohio.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
ROSS METALS CO., MILTON, 505 Davisville Rd., Davisville, Pa. ADV. PG. 643.
 Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Thomas & Sons, Inc., William, Slocum Ave., Ridgefield, N. J.

Bulbs & Envelopes

AMERICAN FELDMEUEHL CORP., 11 W. 42nd St., New York 36, N. Y. ADV. PG. 457.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 Ceramaseal Co., The Box 25, New Lebanon Center, N. Y.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
 Diamonite Products Mfg. Co., Div. of U. S. Ceramic Tile Co., 1232 Cleveland Ave., N. W., Canton, Ohio.
HAMILTON ELECTRONICS CORP., Box 100, Bath, N. Y. ADV. PG. 507.
 Lancaster Glass Corp., Lancaster, Ohio.
 Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
SCIENTIFIC ELECTRONIC LABS, INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 670.
 U. S. Stoneware Co., Akron 9, Ohio.
WESTERN GOLD & PLATINUM CO., 525 Harbor Blvd., Belmont, Calif. ADV. PG. 593.

Button Stems

Diamonite Products Mfg. Co., Div. of U. S. Ceramic Tile Co., 1232 Cleveland Ave., N. W., Canton, Ohio.
 Faber Mfg. Co., Merle, 35 Stillman St., San Francisco 7, Calif.
SCIENTIFIC ELECTRONIC LABS, INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 670.

Caps

Diamonite Products Mfg. Co., Div. of U. S. Ceramic Tile Co., 1232 Cleveland Ave., N. W., Canton, Ohio.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 609.
 Faber Mfg. Co., Merle, 35 Stillman St., San Francisco 7, Calif.
 Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.

RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 103.
 Warren Plastics Corp., Warren, Pa.

Cathode Ray Tube Powders

Associated Engineering & Mfg. Co., Glen Ridge, N. J.
 General Electric Co., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 Jonas Co., F., 55 W. 42nd St., New York 36, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 U. S. Radium Corp., Hanover & Horse Hill Rd., Morristown, N. J. ADV. PG. 639.

Cathode Ray Tube Side Contacts

Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
 Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 103.

Cathodes, Sleeves, Discs and Tubes

AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 Diamonite Products Mfg. Co., Div. of U. S. Ceramic Tile Co., 1232 Cleveland Ave., N.W., Canton, Ohio.
 Faber Mfg. Co., Merle, 35 Stillman St., San Francisco 7, Calif.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
GENERAL ELECTRIC CO., SPECIALTY ELECTRONIC COMPONENTS DEPT., W. Genesee St., Auburn, N. Y. ADV. PG. 18.
JOHNSON & HOFFMAN MFG. CORP., 31 W. Second St., Mineola, N. Y. ADV. PG. 86, 87.
 Kleiner Metal Specialties, Inc., P. O. Box K, Dunellen, N. J.
 Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
SUPERIOR TUBE CO., 2504 Germantown Pike, Norristown, Pa. ADV. PG. 84, 85.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Conductive Paints

See PAINTS—Conductive

Filament Wire

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 609.
 General Electric Co., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 Micro-Wire Stranding Co., 252 Chestnut St., P. O. Box 514, Passaic, N. J.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.
 Seccon Metals Corp., 7 Intervale St., White Plains, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Techalloy Co., Inc., Rahns, Pa.

Getters

BRIGGS ASSOCIATES, INC., 10 Dekalb St., Norristown, Pa. ADV. PG. 286.
 Faber Mfg. Co., Merle, 35 Stillman St., San Francisco 7, Calif.
 Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.
 Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
 King Laboratories Inc., 127 Solar St., Syracuse 3, N. Y.
NEW HERMES ENGRAVING MACHINE CO., 13-19 University Place, New York 3, N. Y. ADV. PG. 687.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village, N. Y. ADV. PG. 103.

Grids and Supports

AMERICAN LAVA CORP., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
 Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.

DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 609.
 Faber Mfg. Co., Merle, 35 Stillman St., San Francisco 7, Calif.
GENERAL ELECTRIC CO., SPECIALTY ELECTRONIC COMPONENTS DEPT., W. Genesee St., Auburn, N. Y. ADV. PG. 18.
 Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.
 Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 86, 87.
METAL TEXTILE CORP., 647 E. First Ave., Roselle, N. J. ADV. PG. 450.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 103.

Grid Wire

Alloy Metal Wire Div. of H. K. Porter Co., Prospect Park, Pa.
 Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 429.
EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 128, 129.
 General Electric Co., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 Murex, Ltd., Rainham, Essex, England.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.
 Seccon Metals Corp., 7 Intervale St., White Plains, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Techalloy Co., Inc., Rahns, Pa.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Heat Radiators

Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
 Faber Mfg. Co., Merle, 35 Stillman St., San Francisco 7, Calif.
GENERAL ELECTRIC CO., SPECIALTY ELECTRONIC COMPONENTS DEPT., W. Genesee St., Auburn, N. Y. ADV. PG. 18.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

Metal Supports

ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 62.
 Bigelow Mfg. Corp., 225 W. Bigelow St., Newark 8, N. J.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 609.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
GENERAL ELECTRIC CO., SPECIALTY ELECTRONIC COMPONENTS DEPT., W. Genesee St., Auburn, N. Y. ADV. PG. 18.
 Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 86, 87.
 King Laboratories, Inc., 127 Solar St., Syracuse 3, N. Y.
 Haydu Electronics Products, Inc., 1426 W. Front St., Plainfield, N. J.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 670.
 Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bayshore, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Thomas & Sons, Inc., William, Slocum Ave., Ridgefield, N. J.
 Titchener & Co., E. H., 67 Clinton St., Binghamton, N. Y.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 103.

Mica Supports

Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Ford Radio & Mica Corp., 538 63rd St., Brooklyn 20, N. Y.
 Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.
 Micacraft Products Inc., 703 McCarter Highway, Newark 5, N. J.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Tube Seal Leads

ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 62.
Associated Engineering & Mfg. Corp., Glen Ridge, N. J. Bigelow Mfg. Corp., 225 W. Bigelow St., Newark 8, N. J.
Ceramasel, Inc., Box 25, New Lebanon Center, N. Y. **ELECTRONIC PARTS MFG. CO., INC.**, 508 25th St., Union City, N. Y. ADV. PG. 536.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 609.
Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
General Electric Co., Lamp Div., Lamp Leads & Bases Dept., 17825 St. Clair Ave., Cleveland 12, Ohio.
HAMILTON ELECTRONICS CORP., Box 100, Bath, N. Y. ADV. PG. 507.
Quality Products Co., 387 Charles St., Providence, R. I. Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
SCIENTIFIC ELECTRONIC LABS, INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 670.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

Water Jackets

INTERNATIONAL TELEPHONE & TELEGRAPH CORP., COMPONENTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
MACHLETT LABORATORIES, INC., Springdale, Conn. ADV. PG. 469.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.

Wire Parts

Alloy Metal Wire Div. of H. K. Porter Co., Prospect Park, Pa.
ART WIRE STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 62.
Bigelow Mfg. Corp., 225 W. Bigelow St., Newark 8, N. J.
Haydu Electronic Products, Inc., 46 W. Front St., Plainfield, N. J.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 86, 87.
King Laboratories, Inc., 127 Solar St., Syracuse 3, N. Y.
Newcomb Spring Corp., The, 177 E. Hawthorne Ave., Valley Stream, N. Y.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. Y. ADV. PG. 453, Third & Fourth Covers.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

TUBES—Backward Wave

Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
GEISLER LABORATORIES, P. O. Box 252, Menlo Park, Calif. ADV. PG. 591.
HUGGINS LABORATORIES, 711 Hamilton Ave., Menlo Park, Calif. ADV. PG. 320, 321.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
STEWART ENGINEERING CO., Box 277, Soquel, Calif. ADV. PG. 668, 669.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway 19, N. Y. ADV. PG. 733-739.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 174, 175, 411.

TUBES—Ballast

AMPERITE CO., INC., 561 Broadway, New York 12, N. Y. ADV. PG. 229.
CHATHAM ELECTRONICS DIV. OF TUNG-SOL ELECTRIC, INC., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 393.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 288, 289.
ELECTRONIC ENTERPRISES, INC., 65 Seventh Ave., Newark 4, N. J. ADV. PG. 613.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
JFD MFG. CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
KIP ELECTRONICS CORP., 29 Holly Place, P. O. Box 526, Stamford, Conn. ADV. PG. 666.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
VICTOREEN INSTRUMENT CO., COMPONENTS DIV., 5806 Hough Ave., Cleveland 3, Ohio. ADV. PG. 366.

TUBES—Battery Charger

CONTINENTAL ELECTRIC CO., 6 N. Michigan Ave., Chicago 2, Ill. ADV. PG. 496.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Gordos Corp., 250 Glenwood Ave., Bloomfield, N. J.
TAYLOR TUBES, INC., 6 N. Michigan Ave., Chicago 12, Ill. ADV. PG. 496.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

TUBES—Beam Deflection

See TUBES—Counter Beam

TUBES—Bolometer

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
KIP ELECTRONICS CORP., 29 Holly Place, P. O. Box 526, Stamford, Conn. ADV. PG. 666.
NARDA CORP., 160 Herricks Rd., Mineola N. Y. ADV. PG. 184.
Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif.
VICTOREEN INSTRUMENT CO., COMPONENTS DIV., 5806 Hough Ave., Cleveland 3, Ohio. ADV. PG. 366.

TUBES—Cathode Ray, Instrument Use

Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J. CBS-Hytron, A Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
DuMont Laboratories, Inc., Allen B. 760 Bloomfield Ave., Clifton, N. J.
Edgerton, Germeshausen & Grier, Inc., 160 Brookline Ave., Boston, Mass.
Electronic Tube Corp., 1200 E. Mermald Ave., Philadelphia 18, Pa.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
General Electric Co. Ltd. of England, 80 Shore Rd., Port Washington, N. Y.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. ADV. PG. 340-343.
International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Liton Industries, Beverly Hills, Calif.
RADIO CORPORATION OF AMERICA, ENGINEERING PRODUCTS DIV., Camden N. J. ADV. PG. 453, Third & Fourth Covers.

RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Twentieth Century Electronics, Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
WATERMAN PRODUCTS CO., INC., 2445-63 Emerald St., Philadelphia 25, Pa. ADV. PG. 172, 173.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Cathode Ray, Multiple Gun

Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J. DuMont Laboratories, Inc., Allen B. 760 Bloomfield Ave., Clifton, N. J.
Electronic Tube Corp., 1200 E. Mermald Ave., Philadelphia 18, Pa.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
LANSDALE TUBE CO. DIV. OF PHILCO CORP., Church Rd. Lansdale, Pa. ADV. PG. 51.
MacKay Research Labs., R.R. #2, P. O. Box 401, McHenry, Ill.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden N. J. ADV. PG. 453, Third & Fourth Covers.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
Twentieth Century Electronics, Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Cathode Ray, Studio or Theatre

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
DuMont Laboratories, Inc., Allen B. 760 Bloomfield Ave., Clifton, N. J.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
MacKay Research Lab., R. R. #2, P. O. Box 401, McHenry, Ill.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.

RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Cathode Ray, Television Picture

CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
DuMont Laboratories, Inc., Allen B. 760 Bloomfield Ave., Clifton, N. J.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
LANSDALE TUBE CO. DIV. OF PHILCO CORP., Church Rd., Lansdale, Pa. ADV. PG. 51.
Liton Industries, Beverly Hills, Calif.
National Television Tube, Inc., Route 46, Saddle Brook, N. J.
National Video Corp., 4300 W. 47th St., Chicago 32, Ill.
Pioneer Electronics Corp., 2235 South Carmelina, West Los Angeles 65, Calif.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Rauland Corp., The, 4245 N. Knox Ave., Chicago 41, Ill.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Thomas Electronics, Inc., 118 Ninth St., Passaic, N. J.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 361.
Vega Electronics Corp., 1921 Pontius Ave., Los Angeles 25, Calif.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Counter Beam

BURROUGHS CORP., ELECTRONIC TUBE DIV., P.O. Box 1226, Plainfield, N. J. ADV. PG. 379.
DuMont Laboratories, Inc., Allen B. 760 Bloomfield Ave., Clifton, N. J.

TUBES—Electrometer

Central Electronic Manufacturers Inc., 2 Richwood Place, Denville, N. J.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
VICTOREEN INSTRUMENT CO., COMPONENTS DIV., 5806 Hough Ave., Cleveland 3, Ohio. ADV. PG. 366.

TUBES—Geiger Mueller

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 673.
AMERICAN TRADAIR CORP., SUB. OF EKCO ELECTRONICS LTD., 34-01 30th St., Long Island City 6, N. Y. ADV. PG. 693.
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
ANTON ELECTRONIC LABS, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
Diamond Power Specialty Corp., Electronics Dept., Lancaster, Ohio.
Cyclotron Specialties Co., Moraga 8, Calif.
Electronic Products Co., 111 E. 3rd St., Mt. Vernon, N. Y.
Glass Engineering Laboratories, 601 O'Neil Ave., Belmont, Calif.
International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Landsverk Electrometer Co., 550 W. Garfield Ave., Glendale 4, Calif.
Nuclear-Chicago Corp., 223 W. Erie St., Chicago 10, Ill.
Nuclear Development Lab., Box 7034, Kansas City, Mo.
Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
Nucleonic Company of America, 196 DeGraw St., Brooklyn 31, N. Y.
Philips Electronics, Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
Technical Associates, 140 W. Providencia Ave., Burbank, Calif.
Tracerlab, Inc., 1601 Trapelo Rd., Waltham 54, Mass.

Twentieth Century Electronics, Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
VICTOREEN INSTRUMENT CO., COMPONENTS DIV., 5806 Hough Ave., Cleveland 3, Ohio. ADV. PG. 366.
 Western Radiation Lab., 1107 W. 24th St., Los Angeles 7, Calif.
 Wood Counter Laboratory, N., 5491 Blackstone, Chicago 37, Ill.

TUBES—Glow or Discharge

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 673.
 Anglo Corp., 4333 N. Ravenswood Ave., Chicago 13, Ill.
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BAIRD-ATOMIC, INC., 33 University Rd., Cambridge 38, Mass. ADV. PG. 537.
 British Electronics Sales Co., Inc., Oakland Garden Station, Flushing 64, N. Y.
CHATHAM ELECTRONICS DIV. OF TUNG-SOL ELECTRIC INC., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 393.
 DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
 Electronic Products Co., 11 E. Third St., Mt. Vernon, N. Y.
 Elesta Ltd., Bad Ragaz, Switzerland.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 Industrial Electronic Controls Co., 2271 E. 14th St., Brooklyn 29, N. Y.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Kemlite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill.
KIP ELECTRONICS CORP., 29 Holly Place, P.O. Box 526, Stamford, Conn. ADV. PG. 666.
 National Union Electric Corp., Electronics Div., Bloomington, Ill.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.
VICTOREEN INSTRUMENT CO., COMPONENTS DIV., 5806 Hough Ave., Cleveland 3, Ohio. ADV. PG. 366.
 Westinghouse Electric Corp., Electronic Tube Div., P.O. Box 284, Elmira, N. Y.
 White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TUBES—Hearing Aid

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
 Rye Sound Corp., 21 Rye Rd., Rye, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 361.

TUBES—Ignitron

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 National Electronics, Inc., Geneva, Ill.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Ionization

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Central Electronic Manufacturers Inc., 2 Richwood Place, Denville, N. J.
 Consolidated Electrodynamics Corp., Rochester Div., Rochester 3, N. Y.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Klystron

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
 Applied Radiation Corp., 1210 Spring Brook Rd., Walnut Creek, Calif.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 186, 187.
EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 128-129.
GEISLER LABORATORIES, P. O. Box 252, Menlo Park, Calif. ADV. PG. 591.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Litton Industries, Beverly Hills, Calif.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 403, 404.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 332.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
 State Labs., Inc., 649 Broadway, New York 12, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 174, 175, 411.

TUBES—Magnetron

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 186, 187.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 General Electric Co. Ltd. of England, 80 Shore Rd., Port Washington, N. Y.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., COMPONENTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Litton Industries, Beverly Hills, Calif.
 MacKay Research Labs., R. R. #2, P. O. Box 401, McHenry, Ill.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Microwave

TUBES—Microwave Receiving
 See MICROWAVE ACCESSORIES

TUBES—Miniature

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
 CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
CHATHAM ELECTRONICS DIV. OF TUNG-SOL ELECTRIC, INC., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 393.
CONTINENTAL ELECTRIC CO., 6 N. Michigan Ave., Chicago 2, Ill. ADV. PG. 496.
 General Electric Co. Ltd. of England, 80 Shore Rd., Port Washington, N. Y.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
KIP ELECTRONICS CORP., 29 Holly Place, P. O. Box 526, Stamford, Conn. ADV. PG. 666.
LANDDALE TUBE CO., DIV. OF PHILCO CORP., Church Rd., Lansdale, Pa. ADV. PG. 51.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 332.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 Rye Sound Corp., 21 Rye Rd., Rye, N. Y.
SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 674.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
 State Labs., Inc., 649 Broadway, New York 12, N. Y.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Thermosens, Inc., 361 W. Main St., Stamford, Conn.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 361.
 Wells Co., Gary, 361 Rockaway Ave., Valley Stream, N. Y.
 Westinghouse Electric Corp., Electronics Tube Div., P. O. Box 284, Elmira, N. Y.

TUBES—Noise Source

New London Instrument Co., P. O. Box 189, New London, Conn.
 Philco Corp., C & Tioga Sts., Philadelphia 34, Pa.
RED BANK DIVISION, BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 332.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TUBES—Phototubes

Central Electronic Manufacturers Inc., 2 Richwood Place, Denville, N. J.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
CONTINENTAL ELECTRIC CO., 6 N. Michigan Ave., Chicago 2, Ill. ADV. PG. 496.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 Gordos Corp., 250 Glenwood Ave., Bloomfield, N. J.
 Hupp Electronics Co., A Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 MacKay Research Labs., R. R. #2, P. O. Box 401, McHenry, Ill.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 361.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
 Western Radiation Lab., 1107 W. 24th St., Los Angeles 7, Calif.

TUBES—Phototubes, Multiplier

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 DuMont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N. J.
 Farnsworth Electronics Co. Div. of IT&T, 3700 E. Pontiac St., Fort Wayne 1, Ind.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 MacKay Research Labs., R. R. #2, P. O. Box 401, McHenry, Ill.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 361.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.

TUBES—Photovoltaic

See CELLS—Photovoltaic

TUBES—Pirani

Consolidated Electrodynamics Corp., Rochester Div., Rochester 3, N. Y.
CONTINENTAL ELECTRIC CO., 6 N. Michigan Ave., Chicago 2, Ill. ADV. PG. 496.
 Nuclear Corp. of America, 350 Fifth Ave., New York 1, N. Y.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.

TUBES—Power Amplifier

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
 British Industries Corp., 80 Shore Rd., Port Washington, N. Y.

CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
 Central Electronic Manufacturers Inc., 2 Richwood Place, Denville, N. J.
CHATHAM ELECTRONICS DIV. OF TUNG-SOL ELECTRIC, INC., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 393.
EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 128, 129.
 Electronic Enterprises, Inc., 65 7th Ave., Newark 4, N. J.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 General Electric Co. Ltd. of England, 80 Shore Rd., Port Washington, N. Y.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., COMPONENTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Lewis & Kaufman, Ltd., P. O. Box 337, Los Gatos, Calif.
MACHLETT LABORATORIES, INC., Springdale, Conn. ADV. PG. 469.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Penta Laboratories, Inc., 312 N. Nopal St., Santa Barbara, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 332.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
 State Labs, Inc., 649 Broadway, New York 12, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TAYLOR TUBES, INC., 2312 W. Wabansia Ave., Chicago 47, Ill. ADV. PG. 496.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 5, N. J. ADV. PG. 361.
 United Electronics Co., 42 Spring St., Newark 2, N. J.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 174, 175, 411.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Radial BeamSee **TUBES—Counter Beam****TUBES—Receiving**

American Elite, Inc. (Telefunken) 7 Park Ave., New York 16, N. Y.
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
 British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
 CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
CHATHAM ELECTRONICS DIV. OF TUNG-SOL ELECTRIC, INC., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 393.
EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 128, 129.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 General Electric Co. Ltd. of England, 80 Shore Rd., Port Washington, N. Y.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
LANDSALE TUBE CO., DIV. OF PHILCO CORP., Church Rd., Lansdale, Pa. ADV. PG. 51.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 332.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 361.
 Wells Co., Gary, 361 Rockaway Ave., Valley Stream, N. Y.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Rectifying, Gas Filled Type

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 673.
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
ANTON ELECTRONIC LABS, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.

CHATHAM ELECTRONICS DIV. OF TUNG-SOL ELECTRIC, INC., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 393.
CONTINENTAL ELECTRIC CO., 6 N. Michigan Ave., Chicago 2, Ill. ADV. PG. 496.
EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 128, 129.
ELECTRONIC ENTERPRISES, INC., 65 Seventh Ave., Newark 4, N. J. ADV. PG. 613.
 Electronic Products Co., 111 E. 3rd St., Mt. Vernon, N. Y.
ELECTRONS, INC., 127 Sussex Ave., Newark 3, N. J. ADV. PG. 318.
 General Electric Co. Ltd. of England, 80 Shore Rd., Port Washington, N. Y.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 Gordos Corp., 250 Glenwood Ave., Bloomfield, N. J.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Industrial Tubes, Inc., 321 Stevens St., Geneva, Ill.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., COMPONENTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 MacKay Research Lab., R. R. #2, P. O. Box 401, McHenry, Ill.
 National Electronics, Inc., Geneva, Ill.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TAYLOR TUBES, INC., 2312 Wabansia Ave., Chicago 47, Ill. ADV. PG. 496.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
TRANSITRON, INC., 186 Granite St., Manchester, N. H. ADV. PG. 326.
 United Electronics Co., 42 Spring St., Newark 2, N. J.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Rectifying, Vacuum Type

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
 CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
 Central Electronic Manufacturers Inc., 2 Richwood Place, Denville, N. J.
CHATHAM ELECTRONICS DIV. OF TUNG-SOL ELECTRIC, INC., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 393.
CONTINENTAL ELECTRIC CO., 6 N. Michigan Ave., Chicago 2, Ill. ADV. PG. 496.
 Dunlee Corp., 4560 W. Congress St., Chicago 24, Ill.
EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 128-129.
ELECTRONIC ENTERPRISES, INC., 65 Seventh Ave., Newark 4, N. J. ADV. PG. 613.
 General Electric Co. Ltd. of England, 80 Shore Rd., Port Washington, N. Y.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 Gordos Corp., 250 Glenwood Ave., Bloomfield, N. J.
 Industrial Tubes, Inc., 321 Stevens St., Geneva, Ill.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., COMPONENTS DIV., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
 Lewis & Kaufman, Ltd., P. O. Box 337, Los Gatos, Calif.
MACHLETT LABORATORIES, INC., Springdale, Conn. ADV. PG. 469.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 OK Electronics Corp., 7 Hunt Place, Nutley, N. J.
 Penta Laboratories, Inc., 312 N. Nopal St., Santa Barbara, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 332.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TAYLOR TUBES, INC., 2312 W. Wabansia Ave., Chicago 47, Ill. ADV. PG. 496.

TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
 Thermosen, Inc., 361 W. Main St., Stamford, Conn.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 361.
 United Electronics Co., 42 Spring St., Newark 2, N. J.
 United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
 Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Storage, ElectrostaticSee **TUBES—Cathode Ray****TUBES—Television**See **TUBES—Cathode Ray, Television Picture****TUBES—Television Camera Pickup**

Diamond Power Specialty Corp., Electronics Dept., Lancaster, Ohio.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
MACHLETT LABORATORIES, INC., Springdale, Conn. ADV. PG. 469.
 Nuclear Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Television Projection (for Home Entertainment)

GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.

TUBES—Thyratron

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 673.
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 186, 187.
CHATHAM ELECTRONICS DIV. OF TUNG-SOL ELECTRIC, INC., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 393.
CONTINENTAL ELECTRIC CO., 6 N. Michigan Ave., Chicago 2, Ill. ADV. PG. 496.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
 Edgerton, Gernsmausen & Grier, Inc., 160 Brookline Ave., Boston, Mass.
EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 128, 129.
ELECTRONIC ENTERPRISES, INC., 65 Seventh Ave., Newark 4, N. J. ADV. PG. 613.
ELECTRONS, INC., 127 Sussex Ave., Newark 3, N. J. ADV. PG. 318.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
 Industrial Electronics Controls Co., 2271 E. 14th St., Brooklyn 29, N. Y.
 Industrial Tubes, Inc., 321 Stevens St., Geneva, Ill.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
KIP ELECTRONICS CORP., 29 Holly Place, P. O. Box 526, Stamford, Conn. ADV. PG. 666.
KUTHE LABORATORIES, INC., 730 S. 13th St., Newark, N. J. ADV. PG. 354.
 MacKay Research Labs., R. R. #2, P. O. Box 401, McHenry, Ill.
 National Electronics, Inc., Geneva, Ill.
 Penta Laboratories, Inc., 312 N. Nopal St., Santa Barbara, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 332.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
TAYLOR TUBES, INC., 2312 Wabansia Ave., Chicago 47, Ill. ADV. PG. 496.
 United Electronics Co., 42 Spring St., Newark 2, N. J.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—TR, Pro TR & Anti TR

BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 186, 187.
Central Electronic Manufacturers Inc., 2 Richwood Place, Denville, N. J.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
International Electronics Corp., (Mullard Equipment) 81 Spring St., New York 12, N. Y.
MICROWAVE ASSOCIATES, INC., Burlington, Mass. ADV. PG. 225-228.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.
White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TUBES—Traveling Wave (Amplifying Type)

ANTON ELECTRONIC LABS, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 691.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 186, 187.
Edgerton, Gernsheim & Grier, Inc., 160 Brookline Ave., Boston, Mass.
Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
GEISLER LABORATORIES, P. O. Box 252, Menlo Park, Calif. ADV. PG. 591.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
HUGGINS LABORATORIES, 711 Hamilton Ave., Menlo Park, Calif. ADV. PG. 320, 321.
International Electronics Corp., (Mullard Equipment) 81 Spring St., New York 12, N. Y.
INTERNATIONAL TELEPHONE & TELEGRAPH CORP., Components Div., 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-357.
MARCONI INSTRUMENTS, 44 New St., New York 4, N. Y. ADV. PG. 550.
Penta Laboratories, Inc., 312 N. Nopal St., Santa Barbara, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 174, 175, 411.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.
White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TUBES—Voltage Reference or Regulating

AEROLUX LIGHTS CORP., 653 Eighth Ave., New York 36, N. Y. ADV. PG. 673.
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
CHATHAM ELECTRIC'S DIV. OF TUNG-SOL ELECTRIC, INC., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 393.
Electronic Products Co., 111 E. Third St., Mt. Vernon, N. Y.
Elesta Ltd., Bad Ragaz, Switzerland.
GENERAL ELECTRIC CO., TUBE SALES, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-15.
General Electric Co. Ltd., of England, 80 Shore Rd., Port Washington, N. Y.
Industrial Tubes, Inc., 321 Stevens St., Geneva, Ill.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
National Union Electric Corp., Electronics Div., Bloomington, Ill.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 332.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TECHNICAL APPARATUS BUILDERS, 109 Liberty St., New York 6, N. Y. ADV. PG. 549.
VICTOREEN INSTRUMENT CO., Components Div., 5806 Hough Ave., Cleveland 3, Ohio. ADV. PG. 366.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—X-Ray

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 290, 291.
BRACKE-SEIB X-RAY CO., INC., 16 Pelham Bay Parkway, Pelham Manor, N. Y. ADV. PG. 590.
Dunlee Corp., 4560 W. Congress St., Chicago 24, Ill.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
MACHLETT LABORATORIES, INC., Springdale, Conn. ADV. PG. 469.
Philips Electronics, Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
Resistor Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
Twentieth Century Electronics, Ltd., Centronics Works, King Henry'd Drive, New Addington, Surrey, England.
X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

TUBING—Aluminum

Aluminum Co. of America, 1911 Alcoa Bldg., Pittsburgh 19, Pa.
American Brass Co., 414 Meadow St., Waterbury 20, Conn.
Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
Channel Master Co., Ellenville, N. Y.
Olin Mathieson Chemical Corp., 460 Park Ave., New York 22, N. Y.
Paul & Stein Bros., Inc., F. H., 235 Fifth Ave., New York 16, N. Y.
Precision Tube Co., Inc., North Wales, Pa.
Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky.
Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.
South River Metal Products Co., 377-379 Turnpike, South River, N. J.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
Stanley-Judd Div. of Stanley Works, Wallingford, Conn.
Uniform Tubes, Level Rd., Collegeville 2, Pa.
United Wire & Supply Corp., Providence 7, R. I.

TUBES—Brass or Copper

American Brass Co., 414 Meadow St., Waterbury 20, Conn.
Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.
Precision Tube Co., Inc., North Wales, Pa.
Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
Schutter Co., Carl W., 80 E. Montauk Pkwy., Lindenhurst, N. Y.
Scovill Mfg. Co., Waterbury 20, Conn.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
Stanley-Judd Div. of Stanley Works, Wallingford, Conn.
Uniform Tubes, Level Rd., Collegeville 2, Pa.
United Wire & Supply Corp., Providence 7, R. I.

TUBING—Ceramic

AMERICAN FELDMEUEHLER CORP., 11 W. 42nd St., New York 36, N. Y. ADV. PG. 457.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfgs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Diamonite Products Mfg. Co., Div. of U. S. Ceramic Tile Co., 1232 Cleveland Ave., N.W., Canton, Ohio.
Du-Co Ceramics Co., Box 587, Butler 8, Pa.
Electrical Refractories Co., 50 Clark St., East Palestine, Ohio.
ERIE RESISTOR CORP., Erie 6, Pa. ADV. PG. 170, 171.
Isolantite Manufacturing Corp., Stirling, N. J.
Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., Le Roy, N. Y. ADV. PG. 276, 277.
Louthan Mfg. Co., East Liverpool, Ohio.
Maryland Lava Co., Ceramic Dept., Bel Air, Md.
Mitronics, Inc., 1290 Central Ave., Hillside, N. J.
Porcelain Products, Inc., Findlay, Ohio.
Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham 54, Mass. ADV. PG. 249.
Star Porcelain Co., The, 61 Muirhead Ave., Trenton 9, N. J.
Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 108, 109.
SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 588.
Taylor Fibre Co., Norristown, Pa.
Thermo Materials, Inc., 4040 Campbell Ave., Menlo Park, Calif.
THOR CERAMICS INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.

TUBING—Fabric

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic, Conn. ADV. PG. 199.
Flexaust Co., The, 100 Park Ave., New York 17, N. Y.
Irrington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
Murray Plastics Corp., 26 Cottage St., Poughkeepsie, N. Y.
Stevens Products, Inc., 86-88 Main St., East Orange, N. J.

TUBING—Fibre

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
American Mica Insulation Co., Manasquan, N. J.
Arrowhead Products, 2300 Curry St., Long Beach 5, Calif.
Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
CLEVELAND CONTAINER CO. THE, 6201 Barberton Ave., Cleveland 2, Ohio. ADV. PG. 160.
CONTINENTAL-DIAMOND FIBRE CORP., Newark 100, Delaware. ADV. PG. 345-348.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
National Vulcanized Fibre Co., Wilmington, Del.
NIEMAND BROTHERS, INC., 37-03 35th Ave., Long City 1, N. Y. ADV. PG. 286.
PARAMONT PAPER TUBE CORP., 614 Lafayette St., Fort Wayne, Ind. ADV. PG. 554.
Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 34, Pa.
Permonite Mfg. Co., 444 N. Lake Shore Dr., Chicago 11, Ill.
Silicone Insulation, Inc., 1385 Seabury Ave., Bronx 61, N. Y.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
Wilmington Fibre Specialty Co., New Castle, Del.

TUBING—Flexible Metal

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
American Brass Co., 414 Meadow St., Waterbury 20, Conn.
Flexaust Co., The, 100 Park Ave., New York 17, N. Y.
Flexonics Corp., 1315 S. Third Ave., Maywood, Ill.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
Marco Industries Co., 207 S. Helena St., Anaheim, Calif.
Trent Tube Co., East Troy, Wis.

TUBING—Fused Quartz

SYNROC PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 589.
Thermal American Fused Quartz Co., Inc., 18-20 Salem St., Dover, N. J.

TUBING—Glass Fibre Insulation

ACCURATE PAPER TUBE CO., 801 N. Peoria St., Chicago 22, Ill. ADV. PG. 416.
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
AMERICAN SUPER-TEMPERATURE WIRES, INC., West Canal St., Winooski, Vt. ADV. PG. 647.
Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
B & C Insulation Products, Inc., Lincoln Highway, Iselin, N. J.
BENTLEY-HARRIS MFG. CO., Conshohocken 13, Pa. ADV. PG. 573.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic, Conn. ADV. PG. 199.
Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
General Plastics Corp., P. O. Box 1236, Paterson, N. J.
Irrington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
LAMTEX INDUSTRIES, INC., 51 State St., Westbury, N. Y. ADV. PG. 596.

MARKEL & SONS, L. FRANK, School House, Norristown, Pa. ADV. PG. 204.
Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
National Electric Coil Co., Columbus 16, Ohio.
National Vulcanized Fibre Co., Wilmington, Del.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 568.
Silicone Insulation, Inc., 1385 Seabury Ave., Bronx 61, N. Y.
Stevens Products, Inc., 86-88 Main St., East Orange, N. J.
Synthane Corp., Oaks, Pa.
Taylor Fibre Co., Norristown, Pa.
Varflex Corp., 506 W. Court St., Rome, N. Y.

TUBING—Glass, Precision

Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 390.
Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
Glass Engineering Laboratories, 601 O'Neil Ave., Belmont, Calif.
HAMILTON ELECTRONICS CORP., Box 100, Bath, N. Y. ADV. PG. 507.
MANSOL CERAMICS CO., 140 Little St., Belleville, N. J. ADV. PG. 697.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 670.
Torrance Glass & Color Works, Torrance, Calif.
VOLTARC TUBES, INC., 44 Cross St., Norwalk, Conn. ADV. PG. 699.
Wilmad Glass Co., Inc., Landisville, N. J.

TUBING—Metal and Alloy

Alloy Tube Div. of The Carpenter Steel Co., Union, N. J.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
American Brass Co., 414 Meadow St., Waterbury 20, Conn.
Arrowhead Products, 2300 Curry St., Long Beach 5, Calif.
Beryllium Corp., Reading, Pa.
Bishop & Co., J., Platinum Works, Malvern, Pa.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Flexaust Co., The, 100 Park Ave., New York 17, N. Y.
Haynes Stellite Co., A Div. of Union Carbide & Carbon Corp., 725 S. Lindsay St., Kokomo, Ind.
International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
PIX MFG. CO., INC., 81 A Hudson St., Newark, N. J. ADV. PG. 670.
Precision Tube Co., Inc., North Wales, Pa.
Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.
Scovill Manufacturing Co., Waterbury 20, Conn.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
SUPERIOR TUBE CO., 2504 Germantown Pike, Norristown, Pa. ADV. PG. 84, 85.
Trent Tube Co., East Troy, Wis.
Uniform Tubes, Level Rd., Collegeville 2, Pa.
United Wire & Supply Corp., Providence 7, R. I.

TUBING—Mica

American Mica Insulation Co., Manasquan, N. J.
Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
CONTINENTAL-DIAMOND FIBRE CORP., Newark 100, Delaware. ADV. PG. 345-348.
Integrated Mica Corp., 202 Franklin Place, Woodmere, N. Y.
Mica Insulator Co., Schenectady 1, N. Y.
Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.

TUBING—Molybdenum

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Murex, Ltd., Rainham, Essex, England.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.

TUBING—Nickel

Bishop & Co., J., Platinum Works, Malvern, Pa.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.
Gar Precision Parts, Inc., 703 Pacific St., Stamford, Conn.
International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.

METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Precision Tube Co., Inc., North Wales, Pa.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
SUPERIOR TUBE CO., 2504 Germantown Pike, Norristown, Pa. ADV. PG. 84, 85.

TUBING—Paper

ACCURATE PAPER TUBE CO., 801 N. Peoria St., Chicago 22, Ill. ADV. PG. 416.
CLEVELAND CONTAINER CO., THE, 6201 Barberton Ave., Cleveland 2, Ohio. ADV. PG. 160.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
NIEMAND BROS., INC., 37-03 35th Ave., Long Island City 1, N. Y. ADV. PG. 286.
PARAMOUNT PAPER TUBE CORP., 614 Lafayette St., Fort Wayne, Ind. ADV. PG. 554.
Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 34, Pa.
PRECISION PAPER TUBE CO., 2041 W. Charleston St., Chicago 47, Ill. ADV. PG. 673.
Quality Components, Inc., St. Marys, Pa.
Stevens Products, Inc., 86-88 Main St., East Orange, N. J.
Stone Paper Tube Co., Inc., 900 Franklin St., N. E., Washington 17, D. C.
Taylor Fibre Co., Norristown, Pa.

TUBING—Plastic

Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
American Mica Insulation Co., Manasquan, N. J.
American Plastics Corp., 342 Madison Ave., New York, N. Y.
American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
ANCHOR INDUSTRIAL CO., DIV. OF ANCHOR PLASTICS CO., INC., 36-36 36th St., Long Island City 6, N. Y. ADV. PG. 613.
Auburn Mfg. Co., The Pease Ave. & Stack St., Middletown, Conn.
BENTLEY-HARRIS MFG. CO., Conshohocken 13, Pa. ADV. PG. 523.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BORDEN CO., RESINITE DEPT., Box 1589, Santa Barbara, Calif. ADV. PG. 604.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic, Conn. ADV. PG. 199.
Chicago Die Mold Div. of U. S. Rubber Co., 4300 New Haven Ave., Fort Wayne 4, Ind.
CLEVELAND CONTAINER CO., THE, 6201 Barberton Ave., Cleveland 2, Ohio. ADV. PG. 160.
CONTINENTAL-DIAMOND FIBRE CORP., Newark 100, Delaware. ADV. PG. 345-348.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
DeLuxe Coils, Inc., Wabash, Ind.
Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
Dixon Corp., Bristol, R. I.
Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pennsauken, N. J.
Extruders, Inc., 3232 W. El Segundo Blvd., Hawthorne, Calif.
Flexaust Co., The, 100 Park Ave., New York 17, N. Y.
Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
Garlock Packing Co., The Palmyra, N. Y.
General Electric Co., Laminated Products Dept., Coshoc-ton, Ohio.
General Electric Co., Plastics Dept., 132 S. Water St., Decatur, Ill.
General Tire & Rubber Co., Akron, Ohio.
Gerling Products, Inc., N. 7th St. at Monroe Ave., Kentworth, N. J.
Goodrich Aviation Products, B. F., Div. of B. F. Goodrich Co., Akron, Ohio.
Goodrich Industrial Products Co., B. F. A Div. of The B. F. Goodrich Co., Plastic Products, Marietta, Ohio.
Halogen Insulator & Seal Corp., 10121 Franklin Ave., Franklin Park, Ill.
Havag Industries, Inc., 900 Greenbank Rd., Wilmington 8, Del.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 386.
Houghton Laboratories Inc., 322 Houghton Ave., Olean, N. Y.
Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.

Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
LAMTEX INDUSTRIES, INC., 51 State St., Westbury, N. Y. ADV. PG. 596.
Luzerne Rubber Co., Muirhead Ave., Trenton, N. J.
MARKEL & SONS, L. FRANK, School House, Norristown, Pa. ADV. PG. 204.
Mica Insulator Co., Schenectady 1, N. Y.
Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 568.
New England Tape Co., Hudson, Mass.
New Jersey Wood Finishing Co., Amboy Ave., Woodbridge, N. J.
NORRICH PLASTICS CORP., 35 E. 32nd St., New York, N. Y. ADV. PG. 244.
Olin Mathieson Chemical Corp., 460 Park Ave., New York 22, N. Y.
Olympic Plastics Co., Inc., 3471 S. LaCienega Blvd., Los Angeles 16, Calif.
Panelyte Div. of Precision Paper Tube Co., 6981 N. Central Park Ave., Chicago 45, (Lincolnwood) Ill.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 694.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 530.
Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.
Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
Sparta Mfg. Co., Div. of U. S. Ceramic Tile Co., Dover, Ohio.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
SURPRENANT MANUFACTURING CO., Clinton, Mass. ADV. PG. 449.
Synthane Corp., Oaks, Pa.
Taylor Fibre Co., Norristown, Pa.
Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 603.
U. S. GASKET CO., Camden, N. J. ADV. PG. 418, 635.
U. S. Stoneware Co., The, Akron 9, Ohio.
Varflex Corp., 506 W. Court St., Rome, N. Y.
Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.
Wilmington Fibre Specialty Co., New Castle, Del.

TUBING—Precious Metal

American Platinum Works, N. J. R. R. Ave. at Oliver St., Newark 5, N. J.
BAKER CO., INC., 113 Astor St., Newark 5, N. J. ADV. PG. 313.
Bishop & Co., J., Platinum Works, Malvern, Pa.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 328.
Improved Seamless Wire Co., 775 Eddy St., Providence 5, R. I.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
MAKEPEACE CO., D. E. DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 558.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
Uniform Tubes, Level Rd., Collegeville 2, Pa.

TUBING—Steel

Alloy Tube Div., The Carpenter Steel Co., Union, N. J.
Armco Steel Corp., 703 Curtis St., Middletown, Ohio.
Avon Tube Div., Higbie Mfg. Co., Wagner Rd., Rochester, Mich.
Bishop & Co., J., Platinum Works, Malvern, Pa.
Channel Master Co., Ellenville, N. Y.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Ohio Seamless Tube Div. of Copperweld Steel Co., Shelby, Ohio.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Revere Copper & Brass, Inc., 230 Park Avenue, New York 17, N. Y.
Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.
South River Metal Products Co., 377-379 Turnpike, South River, N. J.
SUPERIOR TUBE CO., 2504 Germantown Pike, Norristown, Pa. ADV. PG. 84, 85.

Trent Tube Co., East Troy, Wis.
Uniform Tubes, Level Rd., Collegeville 2, Pa.

TUBING—Synthetic Resin **See TUBING—Plastic**

TUBING—Tantalum

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
Murex, Ltd., Rainham, Essex, England.
Paul & Stein Bros., Inc., F. H., 235 Fifth Ave., New York 16, N. Y.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.

TUBING—Titanium

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Rem-Cru Titanium, Inc., Midland, Pa.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
SUPERIOR TUBE CO., 2504 Germantown Pike, Norristown, Pa. ADV. PG. 84, 85.
Trent Tube Co., East Troy, Wis.

TUBING—Tungsten

Associated Engineering & Mfg. Co., Glen Ridge, N. J.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Murex, Ltd., Rainham, Essex, England.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.

TUBING—Varnished or Lacquered

ALLIED PLASTICS SUPPLY CORP., 75 Cliff St., New York 38, N. Y. ADV. PG. 247.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
B & C Insulation Products, Inc., Lincoln Highway, Iselin, N. J.
BENTLEY-HARRIS MFG. CO., Conshocken 13, Pa. ADV. PG. 523.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic, Conn. ADV. PG. 199.
CLEVELAND CONTAINER CO., THE, 6201 Barberton Ave., Cleveland 2, Ohio. ADV. PG. 160.
Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
MARKEL & SONS, L. FRANK, School House, Norristown, Pa. ADV. PG. 204.
Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
National Electric Coil Co., Columbus, Ohio.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 568.
Resinite Corp., Sub. of Precision Paper Tube Co., 6981 N. Central Park Ave., Chicago 45, (Lincolnwood) Ill.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
Varflex Corp., 506 W. Court St., Rome, N. Y.

TUBING—Varnished Cambric Insulation

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
American Mica Insulation Co., Manasquan, N. J.
BENTLEY-HARRIS MFG. CO., Conshocken 13, Pa. ADV. PG. 523.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic, Conn. ADV. PG. 199.
Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
MARKEL & SONS, L. FRANK, School House, Norristown, Pa. ADV. PG. 204.
Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 568.
PRECISION PAPER TUBE CO., 2041 W. Charleston St., Chicago 47, Ill. ADV. PG. 673.
Varflex Corp., 506 W. Court St., Rome, N. Y.

TUBING—Waveguide

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 532.
American Brass Co., 414 Meadow St., Waterbury 20, Conn.
Central Electronic Manufacturers Inc., 2 Richwood Place, Denville, N. J.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 310.
Gar Precision Parts, Inc., 703 Pacific St., Stamford, Conn.

J-V-M ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
LAMTEX INDUSTRIES, INC., 51 State St., Westbury, N. Y. ADV. PG. 596.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
MERIDIAN METALCRAFT, INC., 8739 S. Millergrove Drive, Whittier, Calif. ADV. PG. 540.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 545.

TUBING—Woven or Knitted Wire

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
Factory Enterprises, Inc., 3431 Butler St., Pittsburgh 1, Pa.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
METAL TEXTILE CORP., 647 E. First Ave., Roselle, N. J. ADV. PG. 450.
Schuyler Mfg. Corp., 84 Porete Ave., North Arlington, N. J.

TUNERS—a-m

Allied Radio Corp., 100 N. Western Ave., Chicago 80, Ill.
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
Gonset Co., 801 S. Main St., Burbank, Calif.
Fisher Radio Corp., 21-21 Forty-fourth Drive, Long Island City 1, N. Y.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers
Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.
Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
Spivey, Inc., James S., 4908 Hampden Lane, Washington 14, D. C.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.

TUNERS—f-m

Aermotive Equipment Corp., 1632-8 Central St., Kansas City 10, Mo.
Allied Radio Corp., 100 N. Western Ave., Chicago 80, Ill.
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
BROWNING LABORATORIES, INC., Main St., Winchester, Mass. ADV. PG. 614.
Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
Denson Electronics Corp., Ellington, Conn.
Fisher Radio Corp., 21-21 Forty-fourth Drive, Long Island City 1, N. Y.
Gonset Co., 801 S. Main St., Burbank, Calif.
Granco Products, Inc., 36-17 20th Ave., Long Island City, N. Y.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 575.
Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
Pedersen Electronics Co., Mt. Diablo Blvd., Lafayette, Calif.
Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Radio Craftsman Inc., The, 4223 W. Jefferson Blvd., Los Angeles 16, Calif.
Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.

Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

TUNERS—f-m-a-m

A.R.F. Products, Inc., 7627 Lake St., River Forest, Ill.
ALTEC LANSING CORP., 1515 S. Manchester Ave., Anaheim, Calif. ADV. PG. 442.
Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
Fisher Radio Corp., 21-21 Forty-fourth Drive, Long Island City 1, N. Y.
Granco Products, Inc., 36-17 20th Ave., Long Island City, N. Y.
McIntosh Laboratory Inc., 2 Chambers St., Binghamton, N. Y.
Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind.
Pedersen Electronics Co., Mt. Diablo Blvd., Lafayette, Calif.
Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
Precision Radiation Instruments, Inc., 4223 W. Jefferson Blvd., Los Angeles 16, Calif.
Radio Craftsman Inc., The, 4223 W. Jefferson Blvd., Los Angeles 16, Calif.
Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.
Sargent-Raymont Co., The, 4926-28 E. 12th St., Oakland 1, Ohio.
Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.
Weingarten Electronics Labs., Inc., 7556 Melrose Ave., Los Angeles 46, Calif.

TUNERS—Klystron

DIAMOND ANTENNA & MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 337.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
Sperry Gyroscopic Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 174, 175, 411.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 394.

TUNERS—Microwave **See MICROWAVE ACCESSORIES**

TUNERS—Permeability

Aermotive Equipment Corp., 1632-8 Central St., Kansas City 10, Mo.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 113-118.
RADIO CONDENSER CO., Camden, N. J. ADV. PG. 88.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.

TUNERS—Television

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
Automatic Mfg. Div. of General Instrument Corp., 65 Gouverneur St., Newark, N. J.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Grisby-Alison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
Magnavox Co., The, 2131 Bueter Rd., Fort Wayne, Ind.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
Pimex Inc., 18 E. 60th St., New York 22, N. Y.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 434.
Sarkes Tarzian Inc., Tuner Div., East Hillside Dr., Bloomington, Ind.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.

TUNERS—Television rf

DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.

SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 434.
Sarkes Tarzian Inc., Tuner Div., East Hillside Dr., Bloomington, Ind.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Television Utilities Corp., 112-23 Colonial Ave., Corona, N. Y.

TUNERS—uhf

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 672.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Granco Products, Inc., 36-17 20th Ave., Long Island City, N. Y.
Haller, Raymond & Brown, Inc., State College, Pa.
J-V-H ENGINEERING CO., 4633 S. Lawndale Ave., Lyons, Ill. ADV. PG. 640.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 1, Ind.
Microlect Co., 2300 S. 25th St., Salem, Ore.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 284.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 434.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.

TUNING DEVICES—Receiver Mechanical

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
Atlas Precision Products Co., 3802 Castor Ave., Philadelphia 24, Pa.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOWMAR INSTRUMENT CORP., 2415 Pennsylvania St., Fort Wayne, Ind. ADV. PG. 538, 539.
Collins Radio Co., Cedar Rapids, Iowa.
Croname, Inc., 1747 Grace St., Chicago 13, Ill.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Gombos Co., Inc., John, 103 Montgomery St., Irvington 11, N. J.
Grisby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
OAK MFG. CO., 1260 Clybourn Ave., Chicago 10, Ill. ADV. PG. 302, 303.
Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.

TUNING DEVICES—Transmitter Mechanical

Atlas Precision Products Co., 3802 Castor Ave., Philadelphia 24, Pa.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOWMAR INSTRUMENT CORP., 2415 Pennsylvania St., Fort Wayne, Ind. ADV. PG. 538, 539.
Collins Radio Co., Cedar Rapids, Iowa.
Croname, Inc., 1747 Grace St., Chicago 13, Ill.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart Ave., Garden City, N. Y. ADV. PG. 594.
Gombos Co., Inc., John, 103 Montgomery St., Irvington 11, N. J.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
National Co., Inc., 61 Sherman St., Malden 48, Mass.

TURNABLES—Recording and Transcription

Allied Recording Products Co., 32-32 Greenpoint Ave., Long Island City 1, N. Y.
Birmingham Sound Reproducers, Ltd., Monarch Works, Old Hill, Powke Lane, Staffs, England.
Bruel & Kjaer, Naerum, Denmark.
Collaro, Ltd., (Rockbar Corp.), 650 Halstead Ave., Mamaroneck, N. Y.
D & R LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. ADV. PG. 698.
Fairchild Recording Equipment Co., 10-40 45th Ave., Long Island City 1, N. Y.
Garrard Sales Corp., 80 Shore Rd., Port Washington, N. Y.
INTERSEARCH, INC., 7 Arcadia Place, Cincinnati 8, Ohio. ADV. PG. 480.
Presto Recording Corp., P. O. Box 500, Paramus, N. J.
Q. R. K. Electronic Products, 445 N. Circle Drive, Fresno 4, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Coverts.
Rek-O-Kut Co., Inc., 38-01 Queens Blvd., Long Island City, N. Y.
Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

TWEETERS

See SPEAKERS

TWISTSSee MICROWAVE ACCESSORIES
BENDS—Microwave**ULTRASONIC EQUIPMENT:**

See also:

AMPLIFIERS—Ultrasonic
ANALYZERS—Ultrasonic
CLEANERS—Ultrasonic
CONTROLS—Ultrasonic
GAGES—Ultrasonic Thickness
GENERATORS—Ultrasonic
INSTRUMENTS—Ultrasonic
TOOLS—Ultrasonic Soldering
VIBRATORS—Ultrasonic

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
Aeroprojects Incorporated, 310 E. Rosedale Ave., West Chester, Pa.
Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
American Diathermy Products, Inc., 11858 Mississippi Ave., Los Angeles 25, Calif.
ARENBERG ULTRASONIC LABORATORY, INC., 94 Green St., Jamaica Plain 30, Mass. ADV. PG. 672.
Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
BIRTCHEP CORP., 4371 Valley Blvd., Los Angeles 32, Calif. ADV. PG. 636.
Blackstone Corp., 1111 Allen St., Jamestown, N. Y.
Bludworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
Branson Instruments, Inc., 1 Brown House Rd., Stamford, Conn.
BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 605.
Cavitron Electron Oscillator Co. Div. of Short Wave Plastic Forming Co., 355 N. Newport Blvd., Newport Beach, Calif.
Chesapeake Instrument Corp., Shadyside, Md.
Corbett Science Labs., F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
CURTIS-WRIGHT CORP., ELECTRONICS DIV., Plant #2, Central Ave., Carlstadt, N. J. ADV. PG. 110.
Curtiss-Wright Corp., Industrial Scientific Products Div., P. O. Box 270, Caldwell, N. J.
D & R LTD., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. ADV. PG. 698.
Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
Fischer & Co., R. A., 517 Commercial St., Glendale 3, Calif.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 460.
General Kinetics Inc., 555 23rd St., S., Arlington 2, Va.
General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y.
Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
Harris Transducer Corp., Woodbury, Conn.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
Kelvin & Hughes Ltd., New North Rd., Barksingside, Essex, England.
Kidde & Co., Inc., Walter, 477 Main St., Belleville 9, N. J.
McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.
Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
Massa Laboratories Inc., 5 Fottler Rd., Hingham, Mass.
Maxson Instrument Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
McKenna Laboratories, Santa Monica 6, Calif.
MICROSONICS, INC., Hingham Industrial Center, Route 3A, Hingham, Mass. ADV. PG. 458.
Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
Pioneer-Central Division, Bendix Aviation Corp., Davenport, Iowa.
Power Supplies, Inc., 1007 Olive St., Highland, Ill.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 250, 251.
Scientific Electric Corp., 105-119 Monroe St., Garfield, N. J.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
Sheffield Corp., The Dayton 1, Ohio.
Summitt Electronics, Inc., 7 Industrial Place, Summit, N. J.
Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
Teca Corp., 80 Main St., White Plains, N. Y.
Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
Telephonics Corp., Park Ave., Huntington, N. Y.
Ultrasonic Engineering Co., 2402 Second St., Peru, Ill.
Wells-Gardner & Co., 2701 N. Kildare Ave., Chicago 39, Ill.
Woodwelding, Inc., 3000 West Olive, Burbank, Calif.

VACUUM ALUMINIZERS

Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Consolidated Electrodynamics Corp., Rochester Div., Rochester 3, N. Y.
Electrochemical Industries, Inc., 35 Armory St., Worcester, Mass.
Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
Hull Corporation, Abington, Pa.
International Pump & Machine Works, Inc., 81 Dorsa Ave., Livingston, N. J.
Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston 30, Mass.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.
Stokes Co., F. J., 5500 Tabor Rd., Philadelphia 20, Pa.
Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
Vacuum Equipment Div. of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.
Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.

VACUUM FORMING

See PLASTICS—Vacuum Formed

VACUUM GAGES

See GAGES—Vacuum or Pirani

VACUUM INDICATING, RECORDING AND CONTROL EQUIPMENT

Alfred Electronics, 897 Commercial St., Palo Alto, Calif.
Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Consolidated Electrodynamics Corp., Rochester Div., Rochester 3, N. Y.
CONTINENTAL ELECTRIC CO., 6 N. Michigan Ave., Chicago 2, Ill. ADV. PG. 496.
Electronic Research Labs., 85 Surrey St., Brighton 35, Mass.
Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
Hastings-Raydist, Inc., Hampton 9, Va.
International Pump & Machine Works, Inc., 81 Dorsa Ave., Livingston, N. J.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston, Mass.
Manning, Maxwell & Moores, Inc., Industrial Products Div., 250 E. Main St., Stratford, Conn.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 447.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Research Electronics Laboratories, Roslyn, Pa.
U. S. Gauge Div., American Machine & Metals, Inc., Sellersville, Pa.
Vacuum Equipment Div. of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.
Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.
Wallace & Tiernan Products, Inc., 25 Main St., Belleville 9, N. J.
Weston Electrical Instrument Corp., Sub. of Daystrom Inc., 614 Freilighuysen Ave., Newark 12, N. J.

VACUUM PUMPS

Beach-Russ Co., 50 Church St., New York 7, N. Y.
Central Scientific Co., 1700 Irving Park Road, Chicago 13, Ill.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Consolidated Electrodynamics Corp., Rochester Div., Rochester 3, N. Y.
EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.
Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
High Vacuum Equipment Corp., 2 Churchhill Rd., Hingham, Mass.
International Pump & Machine Works, Inc., 81 Dorsa Ave., Livingston, N. J.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.
King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.
Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston 30, Mass.
Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
Litton Engineering Laboratories, P. O. Box 949, Grass Valley, Calif.
Nelson Vacuum Pump Co., George F., 2133 Fourth St., Berkeley 10, Calif.
New England Scientific Instrument Co., Box 408, Cambridge 39, Mass.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.

Red Point Corporation, 1907 Riverside Drive, Glendale 1, Calif.
 Restron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
STEWART ENGINEERING CO., Box 277, Soquel, Calif. ADV. PG. 668, 669.
 Stokes Co., F. J., 5550 Tabor Rd., Philadelphia 20, Pa.
 Vacuum Equipment Div. of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.
VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
 Whittington Pump & Engineering Corp., 1126 Prospect St., Indianapolis 3, Ind.

VACUUM TUBE VOLTMETERS

See **VOLTMETERS—Electronic**

VACUUM UNITS

Beach-Russ Co., 50 Church St., New York 7, N. Y.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Consolidated Electrodynamics Corp., Rochester Div., Rochester 3, N. Y.
 Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
 Hayes Inc., C. I., 800 Wellington Ave., Cranston, R. I.
 International Pump & Machine Works, Inc., 81 Dorsa Ave., Livingston, N. J.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 349.
 Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston, 30, Mass.
 Litton Engineering Laboratories, P. O. Box 949, Grass Valley, Calif.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton 61, Mass. ADV. PG. 102.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Red Point Corporation, 1907 Riverside Drive, Glendale 1, Calif.
SCIENTIFIC ENGINEERING LABORATORIES, 2229 McGee Ave., Berkeley, Calif. ADV. PG. 477.
STANDARD CABINET CO., 57 Washington Ave., Carlstadt, N. J. ADV. PG. 642.
 Stokes Co., F. J., 5550 Tabor Rd., Philadelphia 20, Pa.
TENNEY ENGINEERING, INC., 1090 Springfield Rd., Union, N. J. ADV. PG. 422.
 Vacuum Equipment Div. of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.

VALVES—Servo

Dalmo Victor Co., Div. of Textron, Inc., 1515 Industrial Way, Belmont, Calif.
 Lear, Inc., 3171 S. Bundy Drive, Santa Monica, Calif.
 Midwestern Instruments, 41 & Sheridan Rd., Tulsa, Okla.
 Moog Valve Co., Inc., Proner Airport, East Aurora, N. Y.
 Pegasus Laboratories, Inc., 3692 Eleven Mile Rd., Berkeley, Mich.

VALVES—Solenoid

Adel Precision Products Div. of General Metals Corp., 10777 Vanowen St., Burbank, Calif.
 Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
 Caltron Products Co., 3518 W. Pico Blvd., Los Angeles 19, Calif.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Combustion Control Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Darco Industries, Inc., Gyro Dynamics Div., 2151 E. Rosencrans Ave., El Segundo, Calif.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
 Hays Mfg. Co., 818 W. 12th St., Erie, Pa.
HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau Ave., Brooklyn 22, N. Y. ADV. PG. 653.
 Hydraulic Press Mfg. Co., A Div. of Koehring Co., Mt. Gilead, Ohio.
 Jackes-Evans Mfg. Co., 4427 Geraldine Ave., St. Louis 15, Mo.
 McQuay-Norris Mfg. Co., 2320 Marconi Ave., St. Louis 10, Mo.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Skinner Electric Valve Div., The Skinner Chuck Co., Edgewood Ave., New Britain, Conn.
UNITED AIRCRAFT PRODUCTS, INC., 1116 Bolander Ave., Dayton 1, Ohio. ADV. PG. 148.
VEECO VACUUM CORP., 86 Denton Ave., New Hyde Park, N. Y. ADV. PG. 644.

VARISTORS

See also **CRYSTAL MOUNTS & MIXERS**

GENERAL ELECTRIC CO., MAGNETIC MATERIALS SECTION, 7780 Neff Rd., Edmore, Mich. ADV. PG. 16, 17.

GLOBAR DIV. OF CARBORUNDUM CO., Niagara Falls, N. Y. ADV. PG. 217.
INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 189-192.
UNION SWITCH & SIGNAL DIV. OF WESTINGHOUSE AIR BRAKE CO., Pittsburgh 18, Pa. ADV. PG. 384, 385.
 Victory Engineering Corp., 101 Springfield Rd., Union, N. J.

VARNISH—Cambric Coatings

VARNISH—Insulating

See **INSULATING COMPOUNDS**

VIBRATION ANALYSIS EQUIPMENT

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Advanced Electronics, Inc., 94 Silas Deane Highway, Rocky Hill, Conn.
BARRY CONTROLS, INC., 711 Pleasant St., Watertown 72, Mass. ADV. PG. 49.
 Bruel & Kjaer, Naerum, Denmark.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 478, 479.
CALIDYNE CO., THE, 120 Cross St., Winchester, Mass. ADV. PG. 472.
 Chesapeake Instrument Corp., Shadyside, Md.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
DAVIES LABORATORIES, DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 10721 Hanna St., Beltsville, Md. ADV. PG. 446.
 Dubrow Development Co., 235B Penn St., Burlington, N. J.
 Dynamics Instrumentation Co., Div. of Alberhill Corp., 1118 Mission St., South Pasadena, Calif.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 451.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
 Endeavor Corp., 161 E. California St., Pasadena, Calif.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Erwood Inc., 1770 Berteau Ave., Chicago 13, Ill.
 Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 316, 317.
 Gotham Audio Development Corp., 2 W. 46th St., New York 36, N. Y.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
 Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
 Inco Co., Div. of Barry Controls, Inc., Hollis St., Grotton, Mass.
 International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Cleveland 16, Ohio.
 Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
KAY ELECTRIC CO., 14 Maple Ave., Pine Brook, N. J. ADV. PG. 482, 483.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Litton Industries, Beverly Hills, Calif.
 Massa Laboratories, Inc., 5 Fattler Rd., Hingham, Mass.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Muirhead & Co., Ltd., Beckenham Kent, England.
 Omega Instrument Co., Box 495M, Pasadena, Calif.
 Opton Corp., 3526 State St., Santa Barbara, Calif.
PANORAMIC RADIO PRODUCTS, INC., 10 South Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.
 Solortron, Inc., Western Div., 10761 Burbank Blvd., North Hollywood, Calif.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
 Texas Division, Brush Electronics Co., 3732 Westheimer Rd., Houston 6, Texas.
 Videon Electronic Corp., 902 E. Michigan St., Indianapolis 2, Ind.
WINKLER LABORATORIES, 5225 N. 20th St., Phoenix, Ariz. ADV. PG. 477.

VIBRATION ANALYSIS EQUIPMENT—Electronic Balancing

International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Cleveland 16, Ohio.
 Micro Balancing, Inc., 191 Herricks Rd., Garden City Park, N. Y.
 Omega Instrument Co., Box 495M, Pasadena, Calif.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 360.

VIBRATION ANALYSIS EQUIPMENT—High Temperature Fatigue

Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.

VIBRATION ANALYSIS EQUIPMENT—Vibration Fatigue

Epic, Inc., 154 Nassau St., New York 38, N. Y.
GULTON INDUSTRIES, INC., Metuchen, N. J. ADV. PG. 425.
 L. A. B. Corp., Skaneateles, N. Y.

LING ELECTRONICS, INC., 5120 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
 Maxson Instruments, Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Opton Corp., 3526 State St., Santa Barbara, Calif.
 Solortron, Inc., Western Div., 10761 Burbank Blvd., North Hollywood, Calif.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Great Neck, N. Y.

VIBRATION EXCITING EQUIPMENT

ASSOCIATED TESTING LABORATORIES, INC., 407 Clinton Rd., Caldwell, N. J. ADV. PG. 627.
 Bruel & Kjaer, Naerum, Denmark.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 629.
 L. A. B. Corp., Skaneateles, N. Y.
LING ELECTRONICS, INC., 5120 W. Jefferson Blvd., Los Angeles 16, Calif. ADV. PG. 526.
 Litton Industries of Maryland, Inc., 4910 Calvert Rd., College Park, Md.
MB MFG. CO., A DIV. OF TETRON AMERICAN, INC., 10650 State St., New Haven 11, Conn. ADV. PG. 552.
 Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
 Miller Instruments, Inc., William 325 N. Halstead Ave., Pasadena 8, Calif.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.

VIBRATORS

AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 297-300.
AMERICAN TELEVISION & RADIO CO., 300 E. Fourth St., St. Paul 1, Minn. ADV. PG. 222.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 111.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
JAMES VIBRAPWR CO., 4050 N. Rockwell St., Chicago 18, Ill. ADV. PG. 542.
KURMAN ELECTRIC CO., INC., 191-193 Newell St., Brooklyn 22, N. Y. ADV. PG. 669.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
PRECISE MEASUREMENTS CO., R. D. No. 1, Millbrook Rd., Flemington, N. J. ADV. PG. 399.
 Radiart Co., The, 3455 Vega Ave., Cleveland 13, Ohio.
VIBRATION RESEARCH LABS., INC., 97 Lake Ave., Tuckahoe, N. Y. ADV. PG. 621.
 Vokar Corp., 7300 Huron River Drive, Dexter, Mich.

VIBRATORS—Multivibrators

General Electronics Corp., 17 Madison Ave., Montgomery 4, Ala.
 Gyro Electronics Co., 325 Canal St., New York, N. Y.
 Tripl-T Co., Electronics Box 5352, Pasadena, Calif.

VIBRATORS—Ultrasonic

Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 605.

VISCOSIMETERS WITH ELECTRONIC RECORDERS

Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
FERRANTI ELECTRIC INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Ultrasonic Engineering Co., 2402 Second St., Peru, Ill.

VOLTAGE REGULATING

See **CONTROLS**

VOLTAGE REGULATORS & STABILIZERS

See **REGULATORS—Voltage Regulators & Stabilizers**

VOLTAGE SUPPLIES—Decade

ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 600.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 556.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 613.
KEITHLEY INSTRUMENTS, INC., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
KEPCO LABS., INC., 131-38 Sanford Ave., Flushing 55, N. Y. ADV. PG. 45-48.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 369, 370.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

VOLTMETERS

See **INSTRUMENTS—Electrical Measuring**

VOLTMETERS—Digital

Delaware Products Co., 300 Broadway, Camden 3, N. J.
Electro Instruments, Inc., 3794 Rosecrans, San Diego 10, Calif.
Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
Helipot Corp., Newport Beach, Calif.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Hycor Electronics, Inc., P. O. Bin D, Pasadena, Calif.
KIN TEL (KAY LAB), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif. ADV. PG. 121-123.
LABORATORY FOR ELECTRONICS, INC., 75 Pitts St., Boston 14, Mass. ADV. PG. 358.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
Performance Measurements Co., 15310 W. McNichols, Detroit 35, Mich.
Southern Instruments Ltd., Computer Div., Frimley Rd., Camberley, Surrey.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

VOLTMETERS—Electronic

See INSTRUMENTS—Electrical Measuring

VOLTMETERS—Electrostatic

FERRANTI ELECTRIC INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 620.
Helipot Corp., Newport Beach, Calif.
KEITHLEY INSTRUMENTS, INC. Dept EB, 12415 Euclid Ave., Cleveland 6, Ohio. ADV. PG. 460.
New England Scientific Instrument Co., Box 408, Cambridge 39, Mass.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 528.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 618.
Servo-Recording Instruments, Inc., 1815 W. Van Buren, Phoenix, Ariz.
Specialties, Inc., Skunks Misery Rd., Syosset, N. Y.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 649.
WacLine, Inc., 35 S. St. Clair St., Dayton 2, Ohio.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

VOLTMETERS—Slideback

California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
COLORTONE ELECTRONICS, INC., 200 Frank Rd., Hicksville, N. Y. ADV. PG. 532.
PHOTOGRAPHIC PRODUCTS INC., 1000 N. Olive St., Anaheim, Calif. ADV. PG. 486.

VOLT-OHM-MILLIAMMETERS

See INSTRUMENTS—Electrical Measuring

WASHERS—Insulating

Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
AMERICAN LAVA CORP., Cherokee Blvd. & Mfgs. Rd., Chattanooga 5, Tenn. ADV. PG. 279.
American Mica Insulation Co., Manassas, N. J.
Anti-Corrosive Metal Products Co., Castleton-On-Hudson, N. Y.
Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Du-Co Ceramics Co., Box 587, Butler 8, Pa.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 699.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pennsauken, N. J.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
Ford Radio & Mica Corp., 538 63rd St., Brooklyn 20, N. Y.
GRAYHILL, INC., 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 493.
GRIES REPRODUCER CORP., 151 Beechwood St., New Rochelle, N. Y. ADV. PG. 573.
I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
Isolantite Mfg. Corp., Stirling, N. J.
Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.
Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.

Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Luzerne Rubber Co., Muirhead Ave., Trenton, N. J.
Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
National Felt Co., 76 Summer St., Boston 10, Mass.
National Vulcanized Fibre Co., Wilmington, Del.
NORRICH PLASTICS CORP., 35 E. 32nd St., New York, N. Y. ADV. PG. 244.
Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 34, Pa.
Permonite Mfg. Co., 444 N. Lake Shore Dr., Chicago 11, Ill.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 502.
Printloid, Inc., 93 Mercer St., New York 12, N. Y.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 530.
Rogers Corporation, Goodyear, Conn.
Sheffco Mfg. Corp., Grand & Ruby Ave., Palisades Park, N. J.
Sinclair Mfg. Co., Chartley, Mass.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
Spruce Pine Mica Co., Spruce Pine, N. C.
Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.
Sterling Belt Co., 363-405 W. Erie St., Chicago 10, Ill.
Steward Mfg. Co., D. M., 3600 Jerrold Ave., Chattanooga 1, Tenn.
Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 588.
Taylor Fibre Co., Norristown, Pa.
Tri-Point Plastics, Inc., 177 I. U. Willets Rd., Albertson, N. Y.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
Walco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
Weckesser Co., 5701 Northwest Highway, Chicago 50, Ill.
WESTLAKE PLASTICS CO., W. Lenni Rd., Lenni Mills, Pa. ADV. PG. 557.
Wilmington Fibre Specialty Co., New Castle, Del.
Wrought Washer Mfg. Co., 2264 S. Bay St., Milwaukee 7, Wis.

WASHERS—Lock

Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
Alvo Nut & Bolt Co., Inc., 1601 Grande Vista Ave., Los Angeles 23, Calif.
Anti-Corrosive Metal Products Co., Castleton-On-Hudson, N. Y.
Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
Brunswick Instruments, P. O. Box 813, New Brunswick, N. J.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
CIRCON COMPONENT CO., Santa Barbara Municipal Airport, Goleta, Calif. ADV. PG. 638.
Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S. E., Massillon, Ohio.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 558.
Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
Hobbs Mfg. Co., 26 Salisbury St., Worcester, Mass.
I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 683.
National Lock Washer Co., 40 Hermon St., Newark 5, N. J.
Positive Lock Washer Co., 181 Miller St., Newark 5, N. J.
Republic Steel Corp., Republic Bldg., Cleveland 13, Ohio.
Shakeproof Div. of Illinois Tool Works, St. Charles Rd., Elgin, Ill.
Sheffco Mfg. Corp., Grand & Ruby Ave., Palisades Park, N. J.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Standard Locknut & Lockwasher Inc., 2250 Valley Ave., Indianapolis 18, Ind.
Star Stainless Screw Co., 655 Union Blvd., Totwa, N. J.
Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
Walco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
Wrought Washer Mfg. Co., 2264 S. Bay St., Milwaukee 7, Wis.

WATTMETERS

See INSTRUMENTS—Electrical Measuring

WAVEGUIDE DISSIPATIVE STRIPS

WAVEGUIDE TEST EQUIPMENT

WAVEGUIDES—Combination, Flexible & Rigid

WAVEGUIDES—Microwave

See MICROWAVE ACCESSORIES

WAXES

See INSULATING COMPOUNDS

WEDGES—Wood Slot

Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.

WELDERS—Spot

Ewald Instruments, Route 7E, Kent, Conn.
Littion Engineering Laboratories, P. O. Box 949, Grass Valley, Calif.
Peer, Inc., Benton Harbor, Mich.
Scientific Electric Corp., 105-119 Monroe St., Garfield, N. J.
STEWART ENGINEERING CO., Box 277, Soquel, Calif. ADV. PG. 668, 669.
Taylor-Winfield Corp., 1056 Mahonig, N. W., Warren, Ohio.
Weldmatic Div. of Unitek Corp., 380 N. Halstead Ave., Pasadena, Calif.

WELDING

See CONTROLS

WINDOWS—Pressurizing

BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 186, 187.
Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.

WIRE CAT WHISKERS for TRANSISTORS

COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 627.
Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
Micro-Wire Stranding Co., 252 Chestnut St., P. O. Box 514, Passaic, N. J.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark 2, N. J. ADV. PG. 667.
Second Metals Corp., 7 Intervale St., White Plains, N. Y.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Techalloy Co., Inc., Rahns, Pa.

WIRE—Aluminum

All-State Welding Alloys Co., Inc., 249 Ferris Ave., White Plains, N. Y.
Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
ANCHOR METAL CO., 966 Meeker Ave., Brooklyn 22, N. Y. ADV. PG. 692.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 627.
Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Essex Wire Corp., Magent Wire Div. & Wire & Cable Div., 1610 Wall St., Fort Wayne, Ind.
General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark, N. J. ADV. PG. 667.
Okonite Co., Canal St., Passaic, N. J.
Olin Mathieson Chemical Corp., 460 Park Ave., New York 22, N. Y.
Plastoid Corp., 42-61 24th St., Long Island City, N. Y.
Reynolds Metals Co., 2500 S. Third St., Louisville 3, Ky.
Rome Cable Corp., Ridge St., Rome, N. Y.
Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
South River Metal Products Co., 377-379 Turnpike, South River, N. J.
SURPRENANT MANUFACTURING CO., Clinton, Mass. ADV. PG. 449.
United Wire & Supply Corp., Providence 7, R. I.

WIRE—Annunciator

American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 456.
CHESTER CABLE CORP., Hill St., Chester, N. Y. ADV. PG. 436.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 20.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 Goodline Divn., Wire Co. of America, Inc., 309 Date Ave., Alhambra, Calif.
 Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
 Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.
 Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
 Royal Electric Corp., Pawtucket, R. I.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Superior Insulated Wire Co., Route 9W, Haverstraw, N. Y.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
 Union Plastics Corp., 1630 Paterson Rd., Secaucus, N. J.

WIRE—Antenna

Alloy Metal Wire Div. of H. K. Porter Co., Inc., Prospect Park, Pa.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
 Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 456.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Copperweld Steel Co., Wire & Cable Div., Glassport, Pa.
 Essex Wire Corp., Magnet Wire Div. & Wire & Cable Div., 1601 Wall St., Fort Wayne, Ind.
 Flexo Wire Div. of Copperweld Steel Co., Oswego, N. Y.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 Goodline Divn., Wire Co. of America, Inc., 309 Date Ave., Alhambra, Calif.
 Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark 2, N. J. ADV. PG. 667.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32, Ohio.
 Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Superior Insulated Wire Co., Route 9W, Haverstraw, N. Y.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
 Techalloy Co., Inc., Rahns, Pa.
 Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
 Titchener & Co., E. H., 67 Clinton St., Binghamton, N. Y.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.

WIRE—Asbestos Insulated

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
 American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Collyer Insulated Wire Co., 249 Roosevelt Ave., Pawtucket, R. I.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Continental Wire Sales Corp., Wallingford, Conn.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 20.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 606.
 Okonite Co., The Canal St., Passaic, N. J.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32, Ohio.
REVERE CORPORATION OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
 Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.

Rockbestos Products Corp., Nicolli & Canner Sts., New Haven 4, Conn.
 Royal Electric Corp., Pawtucket, R. I.
 Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.

WIRE—Beryllium Copper

Beryllium Corp., Reading, Pa.
BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 456.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
 Essex Wire Corp., Magnet Wire Div. & Wire & Cable Div., 1601 Wall St., Fort Wayne, Ind.
INSTRUMENT SPECIALTIES CO., INC., 254 Bergen Blvd., Little Falls, N. J. ADV. PG. 240.
 Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
 Magnet Wire Div., Essex Wire Corp., 1601 Wall St., Ft. Wayne, Ind.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark, N. J. ADV. PG. 667.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.

WIRE—Ceramic Insulated

Aero Research Instrument Co., 315 N. Aberdeen St., Chicago 7, Ill.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Rockbestos Products Corp., Nicolli & Canner Sts., New Haven 4, Conn.
 Sprague Electric Co., 125 Marshal St., North Adams, Mass.

WIRE—Copper, Bare

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
 American Brass Co., 414 Meadow St., Waterbury 20, Conn.
 American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Copperweld Steel Co., Wire & Cable Div., Glassport, Pa.
 Electric Auto-Lite Co., The Champlain St., Toledo 1, Ohio.
 Essex Wire Corp., Magnet Wire Div. & Wire & Cable Div., 1601 Wall St., Fort Wayne, Ind.
 Garfield Wire Div., The Overlakes Corp., 142 Monroe St., Garfield, N. J.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
 Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
 Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark, N. J. ADV. PG. 667.
 Nonotuck Mfg. Co., Holyoke, Mass.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., Fort Wayne, Ind. ADV. PG. 54, 55.
 Plastic Wire & Cable Corp., Jewett City, Conn.
 Roebbling's Sons Corp., John A., 640 Broad St., Trenton 2, N. J.
 Rome Cable Corp., Ridge St., Rome, N. Y.
 Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W. C. 2, England.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 United Wire & Supply Corp., Providence 7, R. I.
 Utility Brass & Copper Corp., 255 Conover St., Brooklyn 31, N. Y.
 Warren Wire Co., Pownal, Vt.
 Whitaker Cable Corp., Kansas City 16, Mo.

WIRE—Copper-Clad

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Cos., 1635 S. Clinton St., Chicago 16, Ill.
 Copperweld Steel Co., Wire & Cable Div., Glassport, Pa.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.
 Essex Wire Corp., Magnet Wire Div. & Wire & Cable Div., 1601 Wall St., Fort Wayne, Ind.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
 Improved Seamless Wire Co., 775 Eddy St., Providence 5, R. I.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
 Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Ft. Wayne, Ind.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark 2, N. J. ADV. PG. 667.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.

WIRE—Copper, Insulated

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
 Aero Specialties, Pleasant Valley Rd., Sutton, Mass.
 Alpha Wire Corp., 200 Varick St., New York 14, N. Y.
 American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
AMERICAN SUPER-TEMPERATURE WIRES, INC., West Canal St., Winooski, Vt. ADV. PG. 647.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
 Ansonia Wire & Cable Co., 111 Martin St., Ashton, R. I.
 Apex Wire & Cable Corp., 237 37th St., Brooklyn 32, N. Y.
 Asco Wire & Cable Co., 2 Burroughs St., Bridgeport 7, Conn.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
 Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
 B & M Electric Co., 838 Fourth Ave., Brooklyn 32, N. Y.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BRAND & CO., INC., WILLIAM, 41 North St., Williamantic, Conn. ADV. PG. 199.
 Carol Cable Div., Crescent Co., Inc., 20 Central Ave., Pawtucket, R. I.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
CHESTER CABLE CORP., Hill St., Chester, N. Y. ADV. PG. 436.
 Collyer Insulated Wire Co., 249 Roosevelt Ave., Pawtucket, R. I.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Continental Wire Sales Corp., Wallingford, Conn.
 Copperweld Steel Co., Wire & Cable Div., Glassport, Pa.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 20.
 Diamond Wire & Cable Co., Sycamore, Ill.
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
 Electric Auto-Lite Co., The Champlain St., Toledo 1, Ohio.
 Essex Wire Corp., Magnet Wire Div. & Wire & Cable Div., 1601 Wall St., Fort Wayne, Ind.
 Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.
 Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
 General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.
 Goodline Divn., Wire Co. of America, Inc., 309 Date Ave., Alhambra, Calif.
 Havg Industries, Inc., 900 Greenbank Rd., Wilmington 8, Del.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 386.
 Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
 Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
 Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
 Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Ft. Wayne, Ind.
 Miller Electric Co., 120 Main St., Pawtucket, R. I.
 Mohawk Wire & Cable Corp., 320 River St., Fitchburg, Mass.

New England Electrical Works, Inc., Lisbon, N. H.
Okonite Co., The, Canal St., Passaic, N. J.
Organic Development Corp., Spectra-Strip Div., 10052
Larson Ave., Garden Grove, Calif.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8,
Mass. ADV. PG. 72.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG.
DIV., Fort Wayne, Ind. ADV. PG. 54, 55.
Phelps Wire & Cable Corp., Jewett City, Conn.
Plastoid Corp., 42-61 24th St., Long Island City 1,
N. Y.
Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32,
Ohio.
REVERE CORPORATION OF AMERICA, SUB. OF NEP-
TUNE METER CO., Wallingford 2, Conn. ADV. PG.
516.
REX CORP., THE, Hayward Rd., West Acton, Mass.
ADV. PG. 551.
Rhode Island Insulated Wire Co., 50 Burnham Ave.,
Cranston, R. I.
Rockbestos Products Corp., Nicoll & Canner Sts., New
Haven 4, Conn.
Roebbling's Sons Corp., John A., 640 Broad St., Trenton
2, N. J.
Rome Cable Corp., Ridge St., Rome, N. Y.
Royal Electric Corp., Pawtucket, R. I.
Ronzel Cord & Wire Co., 4723-31 W. Montrose Ave.,
Chicago 41, Ill.
Saxton Products, Inc., 1661 Boone Ave., Bronx 60,
N. Y.
Slepien & Co., Arthur, 2 Burroughs St., Bridgeport 7,
Conn.
Superior Insulated Wire Co., Route 9W, Haverstraw,
N. Y.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
TENSOLITE INSULATED WIRE CO., INC., 190 Main St.,
Tarrytown, N. Y. ADV. PG. 261-264.
Tevco Insulated Wire, 108 Prospect Ave., Burbank,
Calif.
Times Wire & Cable Co., Wallingford, Conn.
Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus,
N. J.
Victor Electric Wire & Cable Corp., 618 Main St.,
West Warwick, R. I.
Warren Wire Co., Pownal, Vt.
Western Insulated Wire Co., 2425 E. 30th St., Los
Angeles 58, Calif.
Whitaker Cable Corp., Kansas City 16, Mo.
Whitney Blake Co., New Haven 14, Conn.

WIRE—Cut and Stripped

Accurate Insulated Wire Corp., 23 Fox St., New Haven,
Conn.
ALPHA WIRE CORP., 200 Varick St., New York 14,
N. Y. ADV. PG. 224.
AMERICAN SUPER-TEMPERATURE WIRES INC., West
Canal St., Winooski, Vt. ADV. PG. 647.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01
Northern Blvd., Corona, N. Y. ADV. PG. 546.
Atlantic Wire & Cable Corp., 119-14 14th Rd., College
Point, N. Y.
B & M Electric Co., 838 Fourth Ave., Brooklyn 32,
N. Y.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic,
Conn. ADV. PG. 199.
Buffalo Electronics Corp., 37 Franklin St., Buffalo 2,
N. Y.
Columbia Wire & Supply Co., 2850 Irving Park Rd.,
Chicago 18, Ill.
Consolidated Wire & Associated Companies, 1635 S.
Clinton St., Chicago 16, Ill.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y.
ADV. PG. 20.
Electric Auto-Lite Co., The, Champlain St., Toledo 1,
Ohio.
Empire Electronics Co., Inc., 166 River St., Paterson 1,
N. J.
First Electronics Corp., 117 Blue Hill Ave., Boston 19,
Mass.
General Cable Corp., 420 Lexington Ave., New York 17,
N. Y.
General Insulated Wire Works, Inc., 69 Gordon Ave.,
Providence 5, R. I.
Goodline Divn., Wire Co. of America, Inc., 309 Date
Ave., Alhambra, Calif.
Haveg Industries, Inc., 900 Greenbank Rd., Wilmington
8, Del.
Holyoke Wire & Cable Corp., 720 Main St., Holyoke,
Mass.
Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13,
Ill.
Lenz Electric Mfg. Co., 1751 N. Western Ave., Chicago
47, Ill.
Manger Electric Co., Miller St., Stamford, Conn.
Miller Electric Co., 120 Main St., Pawtucket, R. I.
Mohawk Wire & Cable Corp., 320 River St., Fitchburg,
Mass.
Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8,
Mass. ADV. PG. 72.
Rego Insulated Wire Co., 830 Monroe St., Hoboken,
N. J.
Rhode Island Insulated Wire Co., 50 Burnham Ave.,
Cranston, R. I.
Royal Electric Corp., Pawtucket, R. I.
Ronzel Cord & Wire Co., 4723-31 W. Montrose Ave.,
Chicago 41, Ill.
Sheltered Workshop, 2521 5th St., Santa Monica, Calif.
Sittler Corp., 18 N. Ada St., Chicago 7, Ill.
Superior Insulated Wire Co., Route 9W, West Haver-
straw, N. Y.

TENSOLITE INSULATED WIRE CO., INC., 190 Main St.,
Tarrytown, N. Y. ADV. PG. 261-264.
Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
Victor Electric Wire & Cable Corp., 618 Main St., West
Warwick, R. I.
Whitaker Cable Corp., Kansas City 16, Mo.
Witelrad Electrical Mfg., Inc., 76 Pulaski St., Stamford,
Conn.

WIRE—Enameled

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
ALPHA WIRE CORP., 200 Varick St., New York 14,
N. Y. ADV. PG. 224.
AMERICAN SUPER-TEMPERATURE WIRES, INC., W.
Canal St., Winooski Vt. ADV. PG. 647.
Anaconda Wire & Cable Co., 25 Broadway, New York
4, N. Y.
Asco Wire & Cable Co., 2 Burroughs St., Bridgeport
7, Conn.
ASSOCIATED AMERICAN TRADING DIVISION 750
St. Ann's Ave., New York 56, N. Y. ADV. PG. 573.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01
Northern Blvd., Corona, N. Y. ADV. PG. 546.
BAKER & CO., INC., 113 Astor St., Newark, N. J.
ADV. PG. 313.
Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44,
Ill.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York
13, N. Y. ADV. PG. 501.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
COHN CORP., SIGMUND, 121 S. Columbia Ave., Mt.
Vernon, N. Y. ADV. PG. 627.
Columbia Wire & Supply Co., 2850 Irving Park Rd.,
Chicago 18, Ill.
Consolidated Wire & Associated Companies, 1635 S.
Clinton St., Chicago 16, Ill.
Copperweld Steel Co., Wire & Cable Div., Glassport, Pa.
DRIVER CO., WILBUR B., 1875 McCarter Highway,
Newark 4, N. J. ADV. PG. 391.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison,
N. J. ADV. PG. 429.
Electric Auto-Lite Co., The, Champlain St., Toledo 1,
Ohio.
Essex Wire Corp., Magnet Wire Div. & Wire & Cable
Div., 1601 Wall St., Fort Wayne, Ind.
Garfield Wire Div. of The Overlakes Corp., 142 Monroe
St., Garfield, N. J.
General Cable Corp., 420 Lexington Ave., New York 17,
N. Y.
General Electric Co., Construction Materials Div., 1285
Boston Ave., Bridgeport 2, Conn.
Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
JELLIFF MFG. CORP., C. O., 200 Pequot Ave., South-
port, Conn. ADV. PG. 685.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck,
Conn. ADV. PG. 606.
Magnet Wire Div. of Essex Wire Corp., 1601 Wall St.,
Fort Wayne, Ind.
North American Phillips Co., Inc., Elmet Div., Lisbon
Rd., Lewiston, Maine.
PHELPS DODGE COPPER PRODUCTS CORP., INCA
MFG. DIV., Fort Wayne, Ind. ADV. PG. 54, 55.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry,
N. Y. ADV. PG. 649.
Rhode Island Insulated Wire Co., 50 Burnham Ave.,
Cranston, R. I.
Roebbling's Sons Corp., John A., 640 Broad St., Trenton
2, N. J.
Saxton Products, Inc., 1661 Boone Ave., Bronx 60,
N. Y.
Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
Slepien & Co., Arthur, 2 Burroughs St., Bridgeport 7,
Conn.
Techalloy Co., Inc., Rahns, Pa.
Warren Wire Co., Pownal, Vt.
Wheeler Insulated Wire Co., Inc., The, Div. of the
Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

WIRE—Fine Wire Specialties

Accurate Spring Mfg. Co., 3811 West Lake St., Chicago,
Ill.
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
Alloy Metal Wire Div. of H. K. Porter Co., Inc., Prospect
Park, Pa.
ALPHA WIRE CORP., 200 Varick St., New York 14,
N. Y. ADV. PG. 224.
AMERICAN SUPER-TEMPERATURE WIRES, INC., W.
Canal St., Winooski, Vt. ADV. PG. 647.
ART WIRE & STAMPING CO., 227 High St., Newark
N. J. ADV. PG. 62.
ASSOCIATED AMERICAN TRADING DIVISION, 750 St.
Ann's Ave., New York 56, N. Y. ADV. PG. 573.
Atlantic Wire & Cable Corp., 119-14 14th Rd., College
Point, N. Y.
BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING
CORP., Bristol, Conn. ADV. PG. 311.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth
Rd., Plymouth, Mich. ADV. PG. 311.
BIRNBACH RADIO CO., INC., 145 Hudson St., New
York 13, N. Y. ADV. PG. 501.
Bishop & Co., J., Platinum Works, Malvern, Pa.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
Carpenter Steel Co., Webb Wire Div., New Brunswick,
N. J.
CHESTER CABLE CORP., Hill St., Chester, N. Y. ADV.
PG. 436.
COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt.
Vernon, N. Y. ADV. PG. 627.

Consolidated Wire & Associated Cos., 1635 S. Clinton
St., Chicago 16, Ill.
Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New
York 36, N. Y.
Copperweld Steel Co., Wire & Cable Div., Glassport, Pa.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box
1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
DRIVER CO., WILBUR B., 1875 McCarter Highway,
Newark 4, N. J. ADV. PG. 391.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison,
N. J. ADV. PG. 429.
Dudek & Bock Spring & Mfg. Co., 4018 W. Grand Ave.,
Chicago 51, Ill.
Eastern Tool & Specialty Co., 1 Montgomery St.,
Belleville 9, N. J.
Essex Wire Corp., Magnet Wire Div. & Wire & Cable
Div., 1601 Wall St., Fort Wayne, Ind.
Flexo Wire Div. of Copperweld Steel Co., Oswego, N. Y.
Fort Wayne Metals, Inc., Fort Wayne 6, Ind.
GIBSON CO., WILLIAM D., THE, 1800 Clybourn Ave.,
Chicago 14, Ill. ADV. PG. 311.
Goodline Divn., Wire Co. of America, Inc., 309 Date Ave.,
Alhambra, Calif.
Holyoke Wire & Cable Corp., 720 Main St., Holyoke,
Mass.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
Indiana Steel & Wire Co., Inc., 700 Council St., Muncie,
Ind.
JELLIFF MFG. CORP., C. O., 200 Pequot Ave., South-
port, Conn. ADV. PG. 685.
Lenz Electric Mfg. Co., 1751 North Western Ave.,
Chicago 47, Ill.
Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson
1, N. J.
Magnet Wire Div. of Essex Wire Corp., 1601 Wall St.,
Fort Wayne, Ind.
Micro-Wire Stranding Co., 252 Chestnut St., P. O.
Box 514, Passaic, N. J.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP.,
341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 311.
NECOR ALLOY PRODUCTS CO., 282 Halsey St., Newark,
N. J. ADV. PG. 667.
New England Electrical Works, Inc., Lisbon, N. H.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV.
PG. 558.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E.
First St., Dayton 3, Ohio. ADV. PG. 311.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG.
DIV., Fort Wayne, Ind. ADV. PG. 54, 55.
Plastoid Corp., 42-61 24th St., Long Island City, N. Y.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG.
311.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry,
N. Y. ADV. PG. 649.
REX CORP., THE, Hayward Rd., West Acton, Mass.
ADV. PG. 551.
Rhode Island Insulated Wire Co., 50 Burnham Ave.,
Cranston, R. I.
Roebbling's Sons Corp., John A., 640 Broad St., Trenton
2, N. J.
SEABOARD COIL SPRING DIVISION, 15001 S. Broad-
way, Gardena, Calif. ADV. PG. 311.
Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
Stanley-Judd Div. of Stanley Works, Wallingford, Conn.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway,
New York 19, N. Y. ADV. PG. 733-739.
Techalloy Co., Inc., Rahns, Pa.
Tevco Insulated Wire 108 Prospect Ave., Burbank,
Calif.
Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus,
N. J.
Waltham Watch Co., Instrument & Industrial Products,
Waltham 54, Mass.

WIRE—Glass Insulated

Accurate Insulated Wire Corp., 23 Fox St., New Haven,
Conn.
ACME WIRE CORP., New Haven 14, Conn. ADV. PG. 611.
ALPHA WIRE CORP., 200 Varick St., New York 14,
N. Y. ADV. PG. 224.
AMERICAN SUPER-TEMPERATURE WIRES, INC., W.
Canal St., Winooski, Vt. ADV. PG. 647.
Anaconda Wire & Cable Co., 25 Broadway, New York
4, N. Y.
Asco Wire & Cable Co., 2 Burroughs St., Bridgeport 7,
Conn.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01
Northern Blvd., Corona, N. Y. ADV. PG. 546.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York
13, N. Y. ADV. PG. 501.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic,
Conn. ADV. PG. 199.
Chase Brass & Copper Co., Inc., 236 Grand St., Water-
bury 20, Conn.
Columbia Wire & Supply Co., 2850 Irving Park Rd.,
Chicago 18, Ill.
Consolidated Wire & Associated Companies, 1635 S.
Clinton St., Chicago 16, Ill.
Continental Wire Sales Corp., Wallingford, Conn.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y.
ADV. PG. 20.
Dielectric Materials Co., 5315-17 N. Ravenswood Ave.,
Chicago 40, Ill.
DRIVER CO., WILBUR B., 1875 McCarter Highway,
Newark 4, N. J. ADV. PG. 391.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J.
ADV. PG. 429.
Electro Auto-Lite Co., The, Champlain St., Toledo 1,
Ohio.

Essex Wire Corp., Magnet Wire Div. & Wire & Cable Div., 1610 Wall St., Fort Wayne, Ind.
 Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 386.
 Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
JELLIFF MFG. CORP., C. O., 200 Pequot Ave., Southport, Conn. ADV. PG. 685.
 Lenz Electric Mfg. Co., 1751 N. Western Ave., Chicago 47, Ill.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 606.
 Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., Fort Wayne Ind. ADV. PG. 54, 55.
 Plastoid Corp., 42-61 24th St., Long Island City, N. Y.
REVERE CORPORATION OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
 Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
 Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Slepian & Co., Arthur, 2 Burroughs St., Bridgeport 7, Conn.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
TENSOLITE INSULATED WIRE CO., 190 Main St., Tarrytown, N. Y. ADV. PG. 261-264.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 Variflex Corp., 506 W. Court St., Rome, N. Y.
 Warren Wire Co., Pownal, Vt.

WIRE—Gold Plated

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 627.
 Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark 2, N. J. ADV. PG. 667.
 North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
 North American Research Labs., Inc., 725 Lexington Ave., Kenilworth, N. J.
 Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
 Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
WILSON CO., H. A., THE, 2655 U. S. Hwy. 22, Union, N. J. ADV. PG. 257.

WIRE—Guy

American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Channel Master Co., Ellenville, N. Y.
 Copperweld Steel Co., Wire & Cable Div., Glassport, Pa.
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
 Indiana Steel & Wire Co., Inc., 700 Council St., Muncie, Ind.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Stainless, Inc., Third St., North Wales, Pa.
 Techalloy Co., Inc., Rahns, Pa.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

WIRE—High Voltage

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
 American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
AMERICAN SUPER-TEMPERATURE WIRES, INC., W. Canal St., Winooski, Vt. ADV. PG. 647.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
 Ansonia Wire & Cable Co., 111 Martin St., Ashton, R. I.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
 Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 456.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic, Conn. ADV. PG. 199.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
CHESTER CABLE CORP., Hill St., Chester, N. Y. ADV. PG. 436.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Continental Wire Sales Corp., Wallingford, Conn.

Copperweld Steel Co., Wire & Cable Div., Glassport, Pa.
 Dielectric Materials Co., 5315-17 North Ravenswood Ave., Chicago 40, Ill.
 Essex Wire Corp., Magnet Wire Div. & Wire & Cable Div., 1610 Wall St., Fort Wayne, Ind.
 Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
 Goodline Divn., Wire Co. of America, Inc., 309 Date Ave., Alhambra, Calif.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
 Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
 Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
 Okonite Co., The, Canal St., Passaic, N. J.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 72.
 Plastic Wire & Cable Corp., Jewett City, Conn.
 Plastoid Corp., 42-61 24th St., Long Island City, N. Y.
 Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
 Rome Cable Corp., Ridge St., Rome, N. Y.
 Royal Electric Corp., Pawtucket, R. I.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
TENSOLITE INSULATED WIRE CO., 190 Main St., Tarrytown, N. Y. ADV. PG. 261-264.
 Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
 Warren Wire Co., Pownal, Vt.

WIRE—Hook-up

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
AMERICAN SUPER-TEMPERATURE WIRES, INC., W. Canal St., Winooski, Vt. ADV. PG. 647.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
 Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 456.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic, Conn. ADV. PG. 199.
CHESTER CABLE CORP., Hill St., Chester, N. Y. ADV. PG. 436.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Continental Wire Sales Corp., Wallingford, Conn.
 Copperweld Steel Co., Wire & Cable Div., Glassport, Pa.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 20.
 Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
 Electro Auto-Lite Co., The, Champlain St., Toledo 1, Ohio.

Essex Wire Corp., Magnet Wire Div. & Wire & Cable Div., 1610 Wall St., Fort Wayne, Ind.
 Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.
 Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Flexo Wire Div. of Copperweld Steel Co., Oswego, N. Y.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
 Havg Industries, Inc., 900 Greenbank Rd., Wilmington 8, Del.
 Goodline Divn., Wire Co. of America, Inc., 309 Date Ave., Alhambra, Calif.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 386.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
 Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
 Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
 Lenz Electric Mfg. Co., 1751 N. Western Ave., Chicago 47, Ill.
 Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
 Miller Electric Co., 120 Main St., Pawtucket, R. I.
 Mohawk Wire & Cable Corp., 320 River St., Fitchburg, Mass.
 Okonite Co., Canal St., Passaic, N. J.
 Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 72.

Plastic Wire & Cable Corp., Jewett City, Conn.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32, Ohio.
 Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
REVERE CORP. OF AMERICA SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
 Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
 Rome Cable Corp., Ridge St., Rome, N. Y.
 Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
 Saxton Products Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Sequoia Process Corp., 2201 Bay Rd., Redwood City, Calif.
 Superior Insulated Wire Co., Route 9W, West Haverstraw, N. Y.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
TENSOLITE INSULATED WIRE CO., INC., 190 Main St., Tarrytown, N. Y. ADV. PG. 261-264.
 Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.
 Warren Wire Co., Pownal, Vt.
 Whitaker Cable Corp., Kansas City 16, Mo.

WIRE—Litz

Asco Wire & Cable Co., 2 Burroughs St., Bridgeport 7, Conn.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Consolidated Wire & Associated Cos., 1635 S. Clinton St., Chicago 16, Ill.
 Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 386.
 Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
 New England Electrical Works, Inc., Lisbon, N. H.
 Slepian & Co., Arthur, 2 Burroughs St., Bridgeport 7, Conn.
 Wheeler Insulated Wire Co., Inc., The, Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

WIRE—Magnet

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 611.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
 American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
AMERICAN SUPER-TEMPERATURE WIRES, INC., W. Canal St., Winooski, Vt. ADV. PG. 647.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
 Asco Wire & Cable Co., 2 Burroughs St., Bridgeport 7, Conn.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
 Chase Brass & Copper Co., Inc., 236 Grant St., Waterbury 20, Conn.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
 Electric Auto-Lite Co., Wire & Cable Div., 3529 24th St., Port Huron, Mich.
 Electro Auto-Lite Co., The, Champlain St., Toledo 1, Ohio.
 Essex Wire Corp., Magnet Wire Div. & Wire & Cable Div., 1610 Wall St., Fort Wayne, Ind.
 Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.
 Garfield Wire Div. of The Overlakes Corp., 142 Monroe St., Garfield, N. J.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 386.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
 Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Ft. Wayne, Ind.
 New England Electrical Works, Inc., Lisbon, N. H.
 North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
 Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.

PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., Fort Wayne, Ind. ADV. PG. 54, 55.
Rea Magnet Wire Co., Inc., East Pontiac St., Fort Wayne, Ind.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.
Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
Roebing's Sons Corp., John A., 640 Broad St., Trenton 2, N. J.
Rome Cable Corp., Ridge St., Rome, N. Y.
Saxton Products Inc., 1661 Boone Ave., Bronx 60, N. Y.
Slepien & Co., Arthur, 2 Burroughs St., Bridgeport 7, Conn.
Sprague Electric Co., 125 Marshall St., North Adams, Mass.
TENSOLITE INSULATED WIRE CO., 190 Main St., Tarrytown, N. Y. ADV. PG. 261-264.
Tensolite Specialties, Inc., 198 Main St., Tarrytown, N. Y.
Trent Tube Co., East Troy, N. Y.
Warren Wire Co., Pownal, Vt.
Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.

WIRE—Metal Shielded

Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
AMERICAN SUPER-TEMPERATURE WIRES, INC., W. Canal St., Winooski, Vt. ADV. PG. 647.
Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 456.
Consolidated Wire & Associated Cos., 1635 S. Clinton St., Chicago 16, Ill.
Continental Wire Sales Corp., Wallingford, Conn.
Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.
General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
General Electric Co., Construction Materials, Div., 1285 Boston Ave., Bridgeport 2, Conn.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 386.
Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
Mohawk Wire & Cable Corp., 320 River St., Fitchburg, Mass.
Plastoid Corp., 42-61 24th St., Long Island City, N. Y.
Precision Tube Co., Inc., North Wales, Pa.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
SYLVANIA ELECTRIC PRODUCTS INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
Warren Wire Co., Pownal, Vt.
Whitney Blake Co., New Haven 4, Conn.

WIRE—Molybdenum

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.
Fanstel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
General Electric Co., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
Micro-Wire Stranding Co., 252 Chestnut St., P. O. Box 514, Passaic, N. J.
Murex Ltd., Rainham, Essex, England.
North American Phillips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Techalloy Co., Inc., Rahns, Pa.

WIRE—Monel

Alloy Metal Wire Div of H. K. Porter Co., Inc., Prospect Park, Pa.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 429.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.

International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.
JELLIFF MFG. CORP., C. O., 200 Pequot Ave., Southport, Conn. ADV. PG. 685.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark 2, N. J. ADV. PG. 667.
Techalloy Co., Inc., Rahns, Pa.

WIRE—Nickel Clad Copper

Alloy Metal Wire Div of H. K. Porter Co., Inc., Prospect Park, Pa.
American Leonie Mfg. Co., Amber & Hagert Sts., Philadelphia 25, Pa.
Associated Engineering & Mfg. Co., Glen Ridge, N. J.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
Improved Seamless Wire Co., 775 Eddy St., Providence 5, R. I.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark 2, N. J. ADV. PG. 667.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Techalloy Co., Inc., Rahns, Pa.

WIRE—Phosphor Bronze

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
American Brass Co., 414 Meadow St., Waterbury 20, Conn.
American Leonie Mfg. Co., Amber & Hagert Sts., Philadelphia 25, Pa.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 627.
Consolidated Wire & Associated Cos., 1635 S. Clinton St., Chicago 16, Ill.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark, N. J. ADV. PG. 667.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.

WIRE—Plastic Insulated

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
Ansonia Wire & Cable Co., 111 Martin St., Ashton, R. I.
Apex Wire & Cable Corp., 237 37th St., Brooklyn 32, N. Y.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 456.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic, Conn. ADV. PG. 199.
Channel Master Co., Ellenville, N. Y.
CHESTER CABLE CORP., Hill St., Chester, N. Y. ADV. PG. 436.
Collyer Insulated Wire Co., 249 Roosevelt Ave., Pawtucket, R. I.
Columbia Wire Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
Continental Wire Sales Corp., Wallingford, Conn.
CRYSTAL-X CORP., 4303 Lenni Rd., Lenni Mills 2, Pa. ADV. PG. 557.
Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
Electro Auto-Lite Co., The, Champlain St., Toledo 1, Ohio.
Essex Wire Corp., Magnet Wire Div. of Wire & Cable Div., 1610 Wall St., Fort Wayne, Ind.
Fairbanks Wire Co., Inc., 2287 Holliers Ave., New York 69, N. Y.
Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.

Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, N. Y.
Goodline Div., Wire Co. of America, Inc., 309 Date Ave., Alhambra, Calif.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 386.
Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
Jersey Specialty Co., Burgess Place, Mountainview, N. J.
Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 606.
Miller Electric Co., 120 Main St., Pawtucket, R. I.
Mohawk Wire & Cable Corp., 320 River St., Fitchburg, Mass.
New England Tape Co., Hudson, Mass.
Okonite Co., The Canal St., Passaic, N. J.
Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 72.
Plastic Wire & Cable Corp., Jewett City, Conn.
Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
REVERE CORPORATION OF AMERICA, SUB. OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.
Rockbestos Products, Nicoll & Canner Sts., New Haven 4, Conn.
Roebing's Sons Corp., John A., 640 Broad St., Trenton 2, N. J.
Rome Cable Corp., Ridge St., Rome, N. Y.
Royal Electric Corp., Pawtucket, R. I.
Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
Sequoia Process Corp., 2201 Bay Rd., Redwood City, Calif.
Standard Telephones & Cables, Ltd., Connaught House, 63 Aldwych, London, W.C.2, England.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.
Whitaker Cable Corp., Kansas City 16, Mo.
Whitney Blake Co., New Haven 14, Conn.

WIRE—Platinum

American Platinum Works, N. J. R. R. Ave. at Oliver St., Newark 5, N. J.
BAKER & CO., INC., 113 Astor St., Newark 5, N. J. ADV. PG. 313.
Bishop & Co., J., Platinum Works, Malvern, Pa.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 627.
Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
Goldsmith Bros., Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Metz Refining Co., 369 Mulberry St., Newark 2, N. J.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark, N. J. ADV. PG. 667.
Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
Wildberg Bros., Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.
WILSON CO., H. A., THE, 2655 U. S. Hwy. 22, Union, N. J. ADV. PG. 257.

WIRE—Precious Metal Plated

See WIRE—Silver Plated

WIRE—Recording

Alloy Metal Wire Div. of H. K. Porter Co., Inc., Prospect Park, Pa.
BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 456.
COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 627.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
Fidelitone, Inc., 6415 Ravenswood, Chicago 26, Ill.
Fort Wayne Metals, Inc., Fort Wayne 6, Ind.
Permo, Inc., 6415 Ravenswood Ave., Chicago 26, Ill.
Techalloy Co., Inc., Rahns, Pa.
Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.

WIRE—Resistance and Filament

Alloy Metal Wire Div. of H. K. Porter Co., Inc., Prospect Park, Pa.
American Leonic Mfg. Co., Amber & Hagert Sts., Philadelphia 25, Pa.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 456.
COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 627.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 429.
Hoskins Mfg. Co., 4445 Lawton Ave., Detroit 8, Mich.
UFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
JELIFF MFG. CORP., C. O., 200 Pequot Ave., Southport, Conn. ADV. PG. 685.
KANTHAL CORP., Amelia Place, Stamford, Conn. ADV. PG. 476.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark, N. J. ADV. PG. 667.
Secor Metals Corp., 7 Intervale St., White Plains, N. Y.
Techalloy Co., Inc., Rahns, Pa.

WIRE—Silver Plated

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
ATLANTIC & PACIFIC WIRE & CABLE CO., INC., 112-01 Northern Blvd., Corona, N. Y. ADV. PG. 546.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 627.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
Electro Auto-Lite Co., The, Champlain St., Toledo 1, Ohio.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
LEACH & GARNER CO., Attleboro, Mass. ADV. PG. 327.
Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 392.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark, N. J. ADV. PG. 667.
North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
North American Research Labs, Inc., 725 Lexington Ave., Kenilworth, N. J.
Plastoid Corp., 42-61 24th St., Long Island City, N. Y.
Secor Metals Corp., 7 Intervale St., White Plains, N. Y.
Standard Metals Corp., Broad & Whiting Sts., North Attleboro, Mass.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Techalloy Co., Inc., Rahns, Pa.
Times, Wire & Cable Co., Wallingford, Conn.
Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
WILSON CO., THE, H. A., 2655 U. S. Hwy. 22, Union, N. J. ADV. PG. 257.

WIRE—Stainless Steel

Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
Alloy Metal Wire Division of H. K. Porter Company, Inc., Prospect Park, Pa.
American Leonic Mfg. Co., Amber & Hagert Sts., Philadelphia 25, Pa.
American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
Armco Steel Corp., 730 Curtis St., Middletown, Ohio.
Carpenter Steel Co., Webb Wire Div., New Brunswick, N. J.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 429.
Fort Wayne Metals, Inc., Fort Wayne 6, Ind.
Hoskins Mfg. Co., 4445 Lawton Ave., Detroit 8, Mich.
Indiana Steel & Wire Co., Inc., 700 Council St., Muncie, Ind.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark, N. J. ADV. PG. 667.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.
Techalloy Co., Inc., Rahns, Pa.
Trent Tube Co., East Troy, N. Y.

WIRE—Tantalum

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
Murex Ltd., Rainham, Essex, England.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark 2, N. J. ADV. PG. 667.

WIRE—Teflon Insulated

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
AMERICAN SUPER-TEMPERATURE WIRES, INC., W. Canal St., Winooski, Vt. ADV. PG. 647.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 158.
BIRNBACH RADIO CO., INC., 145 Hudson St., New York 13, N. Y. ADV. PG. 501.
BOSTON INSULATED WIRE & CABLE CO., 65 Bay St., Boston 25, Mass. ADV. PG. 456.
Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
Continental Wire Sales Corp., Wallingford, Conn.
Electro Auto-Lite Co., The, Champlain St., Toledo 1, Ohio.
Essex Wire Corp., Magnet Wire Div. & Wire & Cable Div., 1610 Wall St., Fort Wayne, Ind.
Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.
Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.
General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
Havag Industries, Inc., 900 Greenbank Rd., Wilmington 8, Del.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 386.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 287.
Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 606.
Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
Okonite Co., Canal St., Passaic, N. J.
Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.
Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
REVERE CORPORATION OF AMERICA, SUB OF NEPTUNE METER CO., Wallingford 2, Conn. ADV. PG. 516.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 551.
Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
Sequoia Process Corp., 2201 Bay Rd., Redwood City, Calif.
Sprague Electric Co., 125 Marshall St., North Adams, Mass.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
Times, Wire & Cable Co., Wallingford, Conn.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.

WIRE—Titanium

Associated Engineering & Mfg. Co., Glen Ridge, N. J.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
CRUCIBLE STEEL COMPANY OF AMERICA, P. O. Box 1558, Pittsburgh 30, Pa. ADV. PG. 305-308.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 391.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 429.
Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
National Lead Co., 111 Broadway, New York 6, N. Y.
NESOR ALLOY PRODUCTS CO., 282 Halsey St., Newark 2, N. J. ADV. PG. 667.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.
Rem-Cru Titanium, Inc., Midland, Pa.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Techalloy Co., Inc., Rahns, Pa.
Trent Tube Co., East Troy, N. Y.

WIRE—Tungsten

BAKER & CO., INC., 113 Astor St., Newark, N. J. ADV. PG. 313.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

EISLER ENGINEERING CO., INC., 751 S. 13th St., Newark 3, N. J. ADV. PG. 660.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 536.
Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
General Electric Co., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
Micro-Wire Stranding Co., 252 Chestnut St., P. O. Box 514, Passaic, N. J.
Murex Ltd., Rainham, Essex, England.
North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
REMBAR CO., INC., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 649.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 733-739.

WIRE—Zirconium

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Foote Mineral Co., 18 W. Chelton Ave., Philadelphia 44, Pa.
METALS & CONTROLS CORP., GENERAL PLATE DIV., 31 Forest St., Attleboro, Mass. ADV. PG. 167.
Murex Ltd., Rainham, Essex, England.
Techalloy Co., Inc., Rahns, Pa.

WIRE MARKING—Service

Acromark Company, Inc., 323 Morrell St., Elizabeth 4, N. J.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 224.
Apex Machine Co., 14-13 118 Sts., College Point 56, N. Y.
Artos Engineering Co., 2737 S. 28th St., Milwaukee, Wis.
Bolling Industries, Inc., 1117 N. Main Ave., Scranton 2, Pa.
BRAND & CO., INC., WILLIAM, 41 North St., Willimantic, Conn. ADV. PG. 199.
Duramark, Inc., 2 Secatoga Ave., Port Washington, N. Y.
Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
MARKWIK MFG. CO., INC., 31 Sexton Rd., Plainville, N. Y. ADV. PG. 498.
Panelgraphic Corp., P. O. Box 254, Caldwell, N. J.
Sheltered Workshop, 2521 Fifth St., Santa Monica, Calif.
SURPRENANT MFG. CO., Clinton, Mass. ADV. PG. 449.
WESTLINE PRODUCTS DIV. OF WESTERN LITHOGRAPH CO., 600 E. Second St., Los Angeles 54, Calif. ADV. PG. 470.
Whitaker Cable Corp., Kansas City 16, Mo.

WIRE STRIPPERS—Chemical

Ellanar Chemical Co., 2308 Oakton St., Evanston, Ill.
Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.
Walco Electronics Mfg. Co., 100 Green St., Rockford, Ill.

WIRE STRIPPERS—Hand

GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
Holub Industries, Inc., 414 DeKalb Ave., Sycamore, Ill.
Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
JFD MFG. CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 53.
Microdot, Inc., 220 Pasadena Ave., South Pasadena, Calif.
Millen Co., Edward L., 90 Summit Ave., Brookline, Mass.
Multicore Solders, Ltd., Multicore Works, Maylands Ave., Hemel Hempstead, Hertfordshire, England.
Rush Wire Stripper Div., The Eraser Co., Inc., 1068 S. Clinton St., Syracuse 4, N. Y.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Walco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
WENCO MFG. CO., 1133 W. Hubbard St., Chicago 22, Ill. ADV. PG. 520.
Whitaker Cable Corp., Kansas City 16, Mo.

WIRE STRIPPERS—Mechanical

Artos Engineering Co., 2737 S. 28th St., Milwaukee, Wis.
GENERAL CEMENT MFG. CO., DIV. OF TEXTRON, INC., ELECTRONIC DIV., 400 S. Wyman St., Rockford, Ill. ADV. PG. 543.
High Speed Hammer Co., Rochester, N. Y.
Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
Rush Wire Stripper Div., The Eraser Co., Inc., 1068 S. Clinton St., Syracuse 4, N. Y.
Stevens Mfg. Co., George, 6022 N. Rogers Ave., Pulaski & Peterson, Chicago 30, Ill.
Technical Devices Co., 2346 Centinela Ave., Los Angeles 64, Calif.
THOMAS INSTRUMENT CO., Three Rivers, Phoenix, N. Y. ADV. PG. 420.
WENCO MFG. CO., 1133 W. Hubbard St., Chicago 22, Ill. ADV. PG. 520.
Wire Stripper Co., 1722 Eastham Ave., East Cleveland 12, Ohio.

WIRED WIRELESS COMMUNICATIONS SYSTEMS

See **COMMUNICATION SYSTEMS—Carrier Current**

WOOFERS

See **SPEAKERS**

WIRE STRIPPERS—Machine

See **MACHINES—Wire Stripping**

X-RAY EQUIPMENT—Industrial

Applied Radiation Corp., 1210 Spring Brook Rd., Walnut Creek, Calif.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
BRACKE-SEIB X-RAY CO., INC., 16 Pelham Bay Parkway, Pelham Manor, N. Y. ADV. PG. 590.
 Central Research Laboratories, Inc., Red Wing, Minn.
 Dice Co., J. W., Englewood, N. J.
 High Voltage Engineering Corp., Burlington, Mass.
 Litton Industries Beverly Hills, Calif.
 Litton Industries of Maryland, Inc., 4910 Calvert Rd., College Park, Md.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
 Philips Electronics, Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 St. John X-Ray Laboratory, Califon, N. J.
 Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
THOMAS INSTRUMENT CO., Three Rivers, Phoenix, N. Y. ADV. PG. 420.
 Triplett & Barton, Inc., 831 N. Lake St., P. O. Box 3128, Burbank, Calif.
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee, Wis.

X-RAY EQUIPMENT—Medical

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
 Applied Radiation Corp., 1210 Spring Brook Rd., Walnut Creek, Calif.
 B & K Mfg. Co., 3726 Southport Ave., Chicago 13, Ill.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
BRACKE-SEIB X-RAY CO., INC., 16 Pelham Bay Parkway, Pelham Manor, N. Y. ADV. PG. 590.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 195-198.
 High Voltage Engineering Corp., Burlington, Mass.
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
SYNTRONIC INSTRUMENTS, INC., 100 Industrial Rd., Addison, Ill. ADV. PG. 570.
THOMAS INSTRUMENT CO., Three Rivers, Phoenix, N. Y. ADV. PG. 420.
WESTINGHOUSE ELECTRIC CORP., Box 868, Pittsburgh 30, Pa. ADV. PG. 205-216.
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

YOKES—Deflection

American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
 Atlas Coil, Inc., 63 Main St., Ansonia, Conn.
 Bendix Aviation Corp., Montrose Div., South Montrose, Pa.
 Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
CELCO, Island Ave., Mahwah, N. J. ADV. PG. 138, 139.
CHICAGO STANDARD TRANSFORMER CORP., 3521 Addison St., Chicago, Ill. ADV. PG. 466-467.
 Cinema-Television, Ltd., Worsley Bridge Rd., London S. E. 26, England.

Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3 Ohio.

Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
 Cossor (Canada) Ltd. 301-303 Windsor St., Halifax, N. S., Canada.
 Davis Electric Co., Cape Girardeau, Mo.
 Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.
 Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill.
 Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill.
 Leonard Electric Products Co., Inc., 67 Thirty-fourth St., Brooklyn 32, N. Y.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
 Penn Tran Corp., Bellefonte, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 453, Third & Fourth Covers.
RADIO CORP. OF AMERICA, RCA ELECTRON TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 453, Third & Fourth Covers.
 Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
 Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
SYNTRONIC INSTRUMENTS, INC., 100 Industrial Rd., Addison, Ill. ADV. PG. 570.
 Teletron Co., The, Bldg. #9, Broward County International Airport, Fort Lauderdale, Fla.
 Television Laboratories, Inc., 1811 St., Wauconda, Ill.
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y.
 Todd-Tran Corp., 156 Gramatan Ave., Mt. Vernon, N. Y.

TRADE NAME INDEX

The following list of trade names of manufacturers and products in or related to the field of electronics has been prepared from data supplied by manufacturers. This list is intended for use in determining the manufacturer's name when only a purported trade name is known. The editors for obvious reasons have not attempted to determine a manufacturer's right to the exclusive use of any such name. Addresses can be obtained by referring to the Manufacturers Index on Page D-232. Only coined trade names are listed as it was deemed unnecessary to include a company name inasmuch as the manufacturer's identity was immediately apparent.

- A-10** Surprenant Mfg. Co.
A-30 Superior Tube Co.
A-31 Superior Tube Co.
A-100 Advanced Electronics, Inc.
A-300 Advanced Electronics, Inc.
"A" NICKEL International Nickel Co., Inc.
A-B Allen-Bradley Co.
ABOGLAS Natvar Corp.
ABRASO Roebbing's Sons Co., John A.
ABSORB-A-SHOCK Federal Shock Mount Corp.
ACA Amplifier Corp. of America
ACA Magnasync Mfg. Co., Ltd.
A. C. GREYSON A. C. Transformer, Inc.
ACI Air Control Installations, Ltd.
ACO General Control Co.
ACL Adler Electronics, Inc.
ACCOPAC Armstrong Cork Co.
ACCUMET Crucible Steel Company of America
ACCURAY Industrial Nucleonics Corp.
ACCUR-DAM G-C Electronics Mfg. Co., Div. of G-C
 Textron, Inc.
ACCUVAC Green Rectifier Co.
ACCWIRE Accurate Insulated Wire Corp.
ACE American Hard Rubber Co.
ACE Arro Expansion Bolt Co.
ACEOHM Ace Electronics Associates.
ACEPOT Ace Electronics Associates
ACE-RELAY Ace Electronics Associates.
ACETRIM Ace Electronics Associates
ACME Aerovox Corp.
ACME Electro Wire Service.
ACME-LITE Acme Battery Co.
ACME-MOLD Acme Wire Co.
ACOUSTALLOY Electro Voice Inc.
ACOUSTIC-BATON University Loudspeakers, Inc.
ACOUSTIC TAPE Jensen Industries, Inc.
ACOUSTICEL Brush Electronics Co.
ACRA-COTE Pacific Universal Products Corp.
ACRAGAGE Norden-Ketay Corp.
ACRASPLIT Entron Inc.
ACRAWAX Glyco Products Co., Inc.
ACROCEL Acromark Co.
ACROCUT Acromark Co.
ACROBOSS Acromark Co.
ACROD Acme Electric Heating Co.
- ACRODIE** Acromark Co.
ACRO-ETCH Acromark Co.
ACROFLEX Anchor Plastics Co., Inc.
ACROGRAVE Acromark Co.
ACROHEX Acromark Co.
ACRO-INK Acromark Co.
ACROLEAF Acromark Co., Inc.
ACROLITE Acromark Co., Inc.
ACROM Acme Electric Heating Co.
ACROMARKER Acromark Co.
ACRO-MATCH Communications Co., Inc.
ACROPLAC Acromark Co.
ACROPRENE Acromark Co.
ACROPRINTER Acromark Co.
ACROSOUND Acro Products Co.
ACROSTAMP Acromark Co., The
ACROTOOL Acromark Co.
ACROVISION Acro Products Co.
ACRYWELD Amphenol Electronics Corp.
ACTANE Enthone, Inc.
ACTONE Acton Co., H. W.
ACTO-TENNA Acme Tool & Specialties Co.
ACTRON Radionic Transformer Co.
ACYA-COTE Pacific Universal Products Corp.
ADD A TANK Bar-Ray Products, Inc.
ADD-A-UNIT Blonder-Tongue Laboratories, Inc.
ADAPEC Centralab Div. of Globe-Union, Inc.
ADAR Radiation Inc.
ADASHAFT Centralab Div. of Globe-Union, Inc.
AD-A-SWITCH Clarostat Mfg. Co., Inc.
ADC Audio Development Co.
ADDAPLUG Associated Engineering Corp.
ADDAVERTER Epco, Incorporated.
ADDITIVE DRIVE Electro-Voice, Inc.
ADD-TRACTOR Victor Adding Machine Co., Electronics
 Sales Div.
ADJUST-A-CONE Quam-Nichols Co.
ADJUSTA-V Radio Merchandise Sales, Inc.
ADJUSTOHM Ward Leonard Electric Co.
ADJUSTOROID Burnell & Co., Inc.
ADLAKE Adams & Westlake Co., The.
ADRAD MacLeod & Hanopol, Inc.
ADVAC General Ceramics Corp.
ADVANCE Acme Battery Co.
ADVANCE Driver-Harris Co.
- ADVANCE** Elgin National Watch Co., Electronics
 Div.
ADVANCETRON Advance Electronics Co.
ADVANTURER Johnson Co., E. F.
AE 16 Bow Solder Products Co., Inc.
AERIOTRON Westinghouse Electric Corp.
AERO Smith Mfg. Co., Nathan R.
AEROCOM Aeronautical Communications Equipment
 Co.
AEROCON Aerovox Corp.
AERO-GUN Shallcross Mfg. Co.
AEROFILM Aerovox Corp.
AEROFLEX Anchor Industrial Co., Div. of Anchor
 Plastics Co., Inc.
AEROHEAD Giannini & Co., Inc., G. M.
AEROHM Waters Mfg., Inc.
AEROLENE Aerovox Corp.
AEROLITE Aerovox Corp.
AERO-MAGNETTE Heinemann Electric Co.
AEROSEAL Breeze Corps.
AEROTEMP Aerovox Corp.
AERO-THREAD Hell-Coll Corp.
AEROTROL Cook Electric Co.
AEROTRON Aeronautical Electronics, Inc.
AEROTWEED Apex Coated Fabrics Co.
AEROVANE Air Control Installations Ltd.
AEROVANE Frizel Instrument Div., Bendix Aviation
 Corp.
A'G'A' Elastic Stop Nut Corp. of America
AGASTAT Elastic Stop Nut Corp. of America.
AGTRON Magnuson Engineers, Inc.
AH Arrow-Hart & Hegeman Electric Co.
AICO Aeromotive Equipment Corp.
AICO Litton Industries
AIL Airborne Instrument Lab., Inc.
AIRACOUSTIC Johns-Manville.
AIRBOY Mitchell Industries, Inc.
AIRBOY American Insulator Corp.
AIR COM Mitchell Industries, Inc.
AIR COMMANDER Audio Equipment Co., Inc.
AIR-CORE Amphenol Electronics Corp.
AIR-DUX Illumitronic Engineering
AIRFLEX Irvington Varnish & Insulator Div. of
 Minnesota Mining & Mfg. Co.
AIRFLEX Lemert Engineering Co., Inc.
AIRFLEX Transradio Ltd.
AIR GENERAL Brach Mfg. Co.
- AIRGRIT** Matthews & Co., James H.
AIR INDUCTORS Barker & Williamson.
AIR KING Ward Products Corp.,
 Div., The Gabriel Co.
AIRLEAD Goodline Divn., Wire Co. of America,
 Inc.
AIR-METER Hastings-Raydist, Inc.
AIR-O-LIMIT Pratt & Whitney Div., Niles-Bement.
 Pond Co.
AIRPOT Electric Regulator Corp.
AIR-RAY Edin Co.
AIRSCOOT Mitchell Industries, Inc.
AIR SPECIAL Brach Mfg. Corp.
AIRSTAT Minneapolis-Honeywell Regulator Co.
AIRSWITCH Minneapolis-Honeywell Regulator Co.
AIRTRON Arrowhead Products
AIRTURN Barber-Colman Co.
A.K.G. Electrovert, Inc.
AKRA-OHM Shallcross Mfg. Co.
ALATHON du Pont de Nemours & Co., Inc., E. I.
ALBASEAL Johns-Manville
ALCHROME Driver Co., Wilbur B.
ALCLAD General Cable Corp.
ALCO Ahrendt Instrument Co.
ALCOA Aluminum Company of America
ALCORITE Alcor Electronics Corp.
ALCROHM Magnetic Metals Co.
ALCUPLATE Metals & Controls Corp.
 General Plate Div.
ALECTRAL General Cable Corp.
ALFER Metals & Controls Corp.
 General Plate Div.
ALFERON Driver-Harris Co.
ALGCO Auburn Manufacturing Co., The.
ALGIN Autel Electronics Co.
A L I Acton Laboratories, Inc.
ALIGN-O-POR Service Instrument Co.
ALIGN-O-POT Bourns Laboratories, Inc.
ALINCO Allegany Instrument Co., Inc.
ALITE U. S. Stoneware Co.
ALJAK Amphenol Electronics Corp.
ALKA-DEOX Enthone, Inc.
ALKANVAR Acme Wire Co.
ALL-ANGL Barry Controls, Inc.
ALL-HYDRAULIC Hydraulic Press Mfg. Co.
ALL-METL Barry Controls, Inc.
ALL SOL Allen Co., Inc., L. B.

ALLEN-HEAD
 Allen Mfg. Co.
ALLIED PROFESSIONAL
 Allied Recording Products Co.
ALLOY A
 Jelliff Mfg. Corp., C. O.
ALLOY C
 Jelliff Mfg. Corp., C. O.
ALLOY 30
 Jelliff Mfg. Corp., C. O.
ALLOY 45
 Jelliff Mfg. Corp., C. O.
ALLOY 60
 Jelliff Mfg. Corp., C. O.
ALLOY 90
 Jelliff Mfg. Corp., C. O.
ALLOY 180
 Jelliff Mfg. Corp., C. O.
ALLOY 800
 Jelliff Mfg. Corp., C. O.
ALMAG
 Alpha Wire Corp.
ALMANOX
 Frenchtown Porcelain Co.
ALMET
 Alloy Metal Wire
 Div. of H. K. Porter Co., Inc.
ALNICO
 Arnold Engineering Co.
ALNICO
 Crucible Steel Co. of America
ALNICO V CB
 Thomas & Skinner, Inc.
ALNIFER
 Metals & Controls Corp.,
 General Plate Div.
ALNOR
 Illinois Testing Labs., Inc.
ALPHATRON
 Canadian Radium & Uranium Corp.
ALPHATRON
 NRC Equipment Corp.
ALPHLEX
 Alpha Wire Corp.
ALPO
 Standard-Toch Chemicals, Inc.
ALRAY
 Alloy Metal Wire
 Div. of H. K. Porter Co., Inc.
ALROK
 Aluminum Co. of America
ALSCO
 Automatic Switch Co.
ALSIMAG
 American Lava Corp.
ALSIPLATE
 Metals & Controls Corp.
 General Plate Div.
ALTEMP
 Alpha Wire Corp.
ALTI-TEMP
 Wincharger Corp.
ALTIVAR
 Rotron Mfg. Co., Inc.
ALUMAST
 Channel Master Co.
ALUMAWELD
 Johnson Mfg. Co., Inc.
ALUMEL
 Hoskins Mfg. Co.
ALUMIBRAZE
 Handy & Harman
ALUMILITE
 Aluminum Co. of America
ALUMI-SOLDER
 Allen Co., Inc., L. B.
ALUMON
 Enthone, Inc.
ALUMOUNT
 Channel Master Co.
ALUMOX
 Enthone, Inc.
ALUNDUM
 Norton Co.
ALUZOOM
 JFD Mfg. Co., Inc.
ALZAK
 Aluminum Co. of America
AMBERSHEATH
 Rome Cable Corp.
AMBERYL
 Vaco Products Co.
AMCU
 American Solder & Flux Co.
AMCON
 American Condenser Co.
AMECO
 American Electronics Co.
AMERBESTOS
 American Steel & Wire Co.
 U. S. Steel Corp., Sub.
AMERCLAD
 American Steel & Wire Co.
 U. S. Steel Corp., Sub.
AMERCON
 American Relay & Controls, Inc.
AMERGLASS
 American Steel & Wire Co.
 U. S. Steel Corp., Sub.
AMERICAN
 Elgin National Watch Co., Electronics
 Div.
AMERICAN
 Manning, Maxwell & Moore, Inc.
AMERICAN BEAUTY
 American Electrical Heater Co.
AMERICAN-PHILLIPS
 American Screw Co.

AMERICON-MICROSEN
 Manning, Maxwell & Moore, Inc.
AMERINE
 American Insulator Corp.
AMERLAC
 American Electric Cable Co.
AMPERLASTIC
 American Electric Cable Co.
AMERSTRAND
 American Steel & Wire Co.
 U. S. Steel Corp., Sub.
AMERTRAN
 Standard Electronics Corp.
AMETRON
 Streeter-Amet Corp.
AMICO
 American Mica Insulation Co.
AMINCO
 American Instrument Co.
AMINCO-AIRE
 American Instrument Co., Inc.
AMING
 Dumont-Airplane & Marine Instruments,
 Inc.
AMMOGAS
 Westinghouse Electric Corp.
AMO
 General Cement Mfg. Co.
AMO-ENO-MONO GAS
 Westinghouse Electric Co.
AMPACET
 American Molding Powder &
 Chemical Corp.
AMPEC
 Centralab Div.
 Globe Union, Inc.
AMPICALL
 Rauland-Borg Corp.
AMPLICORP
 Amplifier Corp. of America
AMPLIFILM
 Amp. Inc.
AMPLI-RUSS
 Amp. Inc.
AMPLISET
 Bristol Co., The
AMPLIVERTER
 Blonder-Tongue Laboratories, Inc.
AMPLUG
 Electrodyn Co.
AMPHOS
 American Metal Co., Ltd., The
AMPROBE
 Pyramid Instrument Corp.
AMPTROL
 Friez Instrument Div.
 Bendix Aviation Corp.
AMPYROL
 American Steel & Wire Corp.,
 U. S. Steel Corp., Sub.
AMRAC
 American Mica Insulation Co.
AMRECON
 American Relay & Controls, Inc.
AMRECON
 Ohmite Mfg. Co.
AMVAR
 American Steel & Wire Co.,
 U. S. Steel Corp., Sub.
ANACONDA
 American Brass Co.
ANALYTROL
 Beckman Instruments, Inc.
ANDICON
 International Telephone & Telegraph Corp.
ANGLE DRIVE
 James Vibrapowr Co.
ANGLGEAR
 Airborne Accessories, Inc.
ANGLYZER
 Waters Manufacturing Inc.
ANGSYN
 Control Components Co.
ANHREX
 Simplex Wire & Cable Co.
ANKOFDAM
 Ansonia Wire & Cable Co.
ANKOSEAL
 Ansonia Wire & Cable Co., The
ANOTHER ABALON PRODUCT
 Abalon Precision Mfg. Corp.
ANNOUNCE-A-LARM
 Dondar Devices.
ANNOUNCEMAT
 Recora Co.
ANTALON
 Green Rectifier Co.
ANTENNALEX
 Radio Corp. of America.
ANTENNASCOPE
 Eldico of New York, Inc.
ANTENSIFIER
 Blonder-Tongue Laboratories, Inc.
ANYVOLT
 Sorensen & Co.
AO
 American Optical Co.
APACHE
 Sangamo Electric Co.
APECO
 American Photocopy Equipment Co.
APEIZON
 Shell Oil Co.
APELCO
 Applied Electronics Co., Inc.
API
 Assembly Products, Inc.

APPLE
 Lansdale Tube Co., Div. of Philco Corp.
APW
 American Platinum Works.
AQUADAG
 Acheson Colloids Co.
AQUALITE
 National Vulcanized Fibre Co.
AQUALUX
 Westinghouse Electric Corp.
AQUAMETER
 Beckman Instruments, Inc.
AQUAPLATE
 Bach & Co., Semon
AQUARESIN
 Glyco Products Co., Inc.
AQUASEAL
 General Cable Corp.
AQUASTOP
 Protection Coatings Corp.
AQUATHENE
 General Cable Corp.
AQUATRATOR
 Precision Scientific Co.
AQUATROL
 Minneapolis-Honeywell Regulator Co.
AQUIFLUX
 Special Chemicals Co.
ARALDITE
 Ciba Co., Inc.
ARAX
 Multicore Solders Ltd.
ARC
 Aircraft Radio Corp.
ARCADIA
 Wells-Gardner & Co.
ARCO-FLEX
 Applied Resins Corp.
ARCON
 Lear, Inc.
ARCOSIL
 Arrowhead Products
ARGLASS
 Servo Corp. of America.
ARISTOCRAT
 Electro-Voice, Inc.
ARITEMP
 Aries Laboratories, Inc.
ARKLESS
 Economy Fuse & Mfg. Co.
ARL
 Applied Research Labs.
ARLAVOX
 Radionic Transformer Co.
ARMALON
 du Pont de Nemours & Co., Inc., E. I.
ARMATITE
 Mica Insulator Co
ARMATURO
 Johns-Manville
ARMITE
 Spaulding Fibre Co., Inc.
ARRESTONE
 Armstrong Cork Co.
ARRO-CORE
 Arro Expansion Bolt Co.
ARROFULTE
 Arro Expansion Bolt Co.
ARROW
 Peck & Harvey Mfg. Corp.
ARROWHEAD
 Sangamo Electric Co.
ARTIC-GLO
 Canadian Radium & Uranium Corp.
ASAPCO-LO
 Federated Metals Div.
 American Smelting & Refining Co.
ASBESTOMENT
 Johns-Manville
ASBESTOS EBONY
 Johns-Manville
ASBESTOSPAK
 Felt Products Mfg. Co.
ASCO
 Automatic Switch Co.
ASCP
 Applied Science Corp. of Princeton.
ASCOR
 American Speedlight Corp.
ASCORLIGHT
 American Speedlight Corp.
ASENCO
 Associated Engineering & Mfg. Co.
ASHCROFT
 Manning, Maxwell & Moore, Inc.
ASTRAMATIC
 Electronic Control Systems, Inc.
ATC
 Automatic Timing & Controls, Inc.
ATCOTRAN
 Automatic Timing & Controls, Inc.
ATCOTROL
 Automatic Timing & Controls, Inc.
ATCOTRONIC
 Automatic Timing & Controls, Inc.
ATL EE
 Atlas E-E Corp.
ATOMS
 Sprague Electric Co.
ATOMEER
 Maico Co., Inc.
ATR
 American Television & Radio Co.
ATTEN-U-CARD
 Elektro-Serv Co.
ATTIC-V-BEAM
 Telrex, Inc.

AUBESTON
 Auburn Manufacturing Co., The.
AUC
 Rockbestos Products Corp.
AUDAX
 Audak Co.
AUDET
 Centralab Div. of
 Globe-Union, Inc.
AUDIAD
 Magnecord, Inc.
AUDICLE
 Sonotone Corp.
AUDIGAGE
 Branson Instruments, Inc.
AUDIO-AID
 Ansley Mfg. Co., Arthur
AUDIODISC
 Audio Devices, Inc.
AUDIO-ELITE
 American Elite, Inc. (Telefunken).
AUDIOFILM
 Audio Devices, Inc.
AUDIO GUIDER
 Audio Equipment Co., Inc.
AUDIO HAILER
 Audio Equipment Co., Inc.
AUDIOHM
 Mallory & Co., Inc., P. R.
AUDIOID
 Cook Laboratories.
AUDIO MIX
 Pentron Corp., The
AUDIPAGE
 Philco Corp.
AUDIPLEX
 Electronics Development Co., Inc.
AUDIOPONTS
 Audio Devices, Inc.
AUDIOSCOPE
 Audio-Master Corp.
AUDIOSCOPE
 Sonotone Corp.
AUDI-O-SEAL
 Automatic & Precision Mfg. Co.
AUDIOTAPE
 Audio Devices, Inc.
AUDITION
 Reeves Soundcraft Corp.
AUDITORIUM
 Jensen Mfg. Co.
AUDITRON
 Sonotone Corp.
AUGATOR
 Mitchell Industries, Inc.
AUMAN
 Associated American Trading Division.
AUOMETERS
 British Industries Corp.
AURASEAL
 Maico Co., Inc.
AURICON
 Berndt-Bach, Inc.
AUTELCO
 Automatic Electric Sales Corp.
AUTOBOOSTER
 Industrial Television, Inc.
AUTOCON
 Sprague Electric Co.
AUTOCOUPLER
 Industrial Television, Inc.
AUTOCROMATIC
 Acton Co., H. W.
AUTO-DRYAIR
 Communication Products Co., Inc.
AUTODYNE
 Westinghouse Electric Corp.
AUTOFAB
 General Mills, Inc., Mechanical Div.
AUTOGRAF
 Moseley Co., F. L.
AUTOGRIP
 Magnasyn Mfg. Co.
AUTOHORD
 Design Tool Corp.
AUTOLLIZER
 North Electric Co.
AUTOLOY
 Teller & Cooper Co.
AUTOLYTIC
 Micamold Electronics Mfg. Corp.
AUTOMANIC
 Premax Products Div.
 Chisholm-Ryder Co., Inc.
AUTO-MATE
 Automatic Metal Products Corp.
AUTOMIX
 Westinghouse Electric Corp.
AUTOMACAP
 Standard Condenser Co.
AUTO-NODE
 Kay Electric Co.
AUTOPILOT
 Lear, Inc.
AUTOPLATER
 Tracerlab, Inc.
AUTOPOSITIONER
 Collins Radio Co.
AUTOSCALER
 Tracerlab, Inc.
AUTO-SCAN
 Nuclear Magnetics Corp.
AUTOSET
 Bristol Co., The
AUTO-SONIC
 Vendo Co.
AUTO-STAT
 American Photocopy Equipment Co.

AUTOSYN
Eclipse-Pioneer Div.
Bendix Aviation Corp.

AUTOTROL
Westinghouse Electric Corp.

AUTOTUNE
Collins Radio Co.

AUTOVALVE
Westinghouse Electric Corp.

AUTO-VOX
Kay Electric Co.

AUTRASTAT
Ward Leonard Electric Co.

A.V.C.
Rockbestos Products Corp.

AVCOM
Avco Mfg. Corp., Crosley Div.

AVIGATOR
Mitchell Industries, Inc.

AXIFLO
Westinghouse Electric Corp.

AXIOHM
Ward Leonard Electric Co.

AXIVANE
Joy Mfg. Co.

AZ
Plastic Wire & Cable Corp.

AZTEC
Sangamo Electric Co.

B-2
Peck & Harvey.

B & A
Baker & Adamson Products, General
Chemical Div. of Allied Chemical & Dye
Corp.

BPW
Bradford Components, Inc.

B.S.R.
Birmingham Sound Reproducers, Ltd.

B-T LABS
Blonder-Tongue Laboratories, Inc.

BAACH-INTERNATIONAL
International Machine Works.

BABY TRIM TROL
Airborne Accessories Corp.

BADGER
Reliance Automatic Lighting Co.

BAKELITE
Union Carbide & Carbon Co.

BALAC
Conant Laboratories.

BALANCED BEAM
Precise Measurements Co.

BALANCED PHASE
Sieler Design Products.

BALCO
Driver Co., Wilbur B.

BALINE
JFD Mfg. Co., Inc.

BALL
Thomson Industries, Inc.

BALLARD
Electrovert Inc.

BALLAST
Driver Co., Wilbur B.

BALLASTRON
Aerovox Corp.

BANC-LOK
Boots Aircraft Nut Corp.

BANDMASTER
Harvey-Wells Electronics, Inc.

BANDRIVE
Machon-Ketay Corp.

BANSHEE
JFD Mfg. Co., Inc.

BANTAM
Aerovox Corp.

BANTAM
Barnstead Still & Sterilizer Co., Inc.

BANTAM
Cook Electric Co.

BANTAM
Small Motors, Inc.

BANTAM-GT
CBS-Hytron,
A Division of Columbia Broadcasting
System, Inc.

BANTAM JR
CBS-Hytron,
A Division of Columbia Broadcasting
System, Inc.

BARANM
Ward Leonard Electric Co.

BARCO
Barium & Chemicals, Inc.

BARCOL
Barber Colman Co.

BARCOMBO
Electronic Enterprises, Inc.

BAREX
King Laboratories, Inc.

BAROHM
Ward Leonard Electric Co.

BARONET
Electro-Voice, Inc.

BARREL-LIFT
Falstrom Co.

BARRYMOUNTS
Barry Controls Inc.

BASS ULTRAFLEX
Jensen Mfg. Co.

BATRYPOWER
Radiart Corp.

BATTERY-SCOPE
Christie Electric Corp.

BAT-WING
Telrex Inc.

BAT'S-EYE
Kennedy & Co., D. S.

BAYTEX
UBS Chemical Co., Inc.

BEACHCOMER
JFD Mfg. Co., Inc.

BEACON
Esso Standard Oil Co.

BEAM
Barker Sales Co.

BEAM BENDER
Technicraft Laboratories, Inc.

BEAMA JUSTER
Perfection Electric Co.

BEAMED POWER
Telrex, Inc.

BEAUGUIDE
Fischer & Porter Co.

BEAUTRONIC
Wappler, Inc.

BEAVER
Cornell-Dubilier Electric Corp.

BECK PROCESS
Beck's Inc.

BECKAMINE
Reichhold Chemicals, Inc.

BECKMAN/HELIPOT
Helipot Corp.

BECO
Westinghouse Electric Corp.

BEE
Buchanan Electrical Products Corp

BEE LINE
Radio Merchandise Sales, Inc.

BEETLE
American Cyanamid Co.

BELCAP
Sprague Electric Co.

BELCO
Bogue Electric Mfg. Co.

BELCON
Bogue Electric Mfg. Co.

BELLOWS
Boots Aircraft Nut Co.

BELL-TIME
Industrial Timer Corp.

BELMONT
Thermo Instruments Co.

BEMCO
Becker Electronics Mfg. Corp.

BENCO
Buck Engineering Co., Inc.

BEN HAR
Bentley-Harris Mfg. Co.

BENELEX
Masonite Corp.

BEPCO
Buchanan Electrical Products Corp.

BERALOV
Driver Co., Wilbur B.

BERCO BRAND
Bergen Wire Rope Co.

BERGER
Republic Steel Corp.

BERKELEY DECIMAL
Berkeley Scientific Co.

BERKSHIRE
Radio Corporation of America.

BERYLCO
Beryllium Corp.

BESTPRODUCTS
Barker Sales Corp.

BEST PRODUCTS
Beam Instruments Corp.

BESTO-WIRE
Rhode Island Insulated Wire Co.

BETTER LIVING
Sonotone Corp.

BEV-RICH
Richardson Co., The

BH
Bentley-Harris Mfg. Co.

BIB
Multicore Solders, Ltd.

BICHROMETER
Perkin-Elmer Corporation, The

BICO
Belock Instrument Corp.

BIFLEX
Altec Lansing Corp

BIG BERTHA
Telrex, Inc.

BIMORPH
Brush Electronics Co.

BI-NET
Johnson Co., E. F.

BI-PRENE
Bishop Mfg. Corp.

BIRACO
Birnbach Radio Co., Inc.

BIRD-E-VICT
Mohawk Business Machines Corp.,

BIRFLENE
Birnbach Radio Co., Inc.

BIRFLEX
Birnbach Radio Co., Inc.

BIRFLON
Birnbach Radio Co., Inc.

BIRNTEX
Birnbach Radio Co., Inc.

BI-SEAL
Bishop Mfg. Corp.

BI-SILON
Bishop Mfg. Corp.

BITAN
Garlock Packing Co., The

BITUMASTIC
Koppers Co., Inc.

BITUPLASTIC
Kopper Co., Inc.

B.I.W.
Boston Insulated Wire & Cable Co.

BJ
Rollin Co.

BK
Barrett Varnish Co.

BL
Browning Laboratories, Inc.

BLACK ARROW
Sangamo Electric Co.

BLACK BEAUTY
Sprague Electric Co.

BLACK DIAMOND
Dunton Co., M. W.

BLACKLINE
Frederick Post Co.

BLINKER LITES
Noel Mfg. Co.

BLU-RED
Associated American Trading Division.

BLUE JACKET
Sprague Electric Co.

BLUE POINT
Astron Corp.

BLUE SHAFT
Centralab Div. of Globe-Union, Inc.

BLUE STREAK
American Electric Cable Co.

BLUE STREAK
Paragon-Revolute Corp.

BLUE ZEPHYR
Mole-Richardson Co.

BLUEBIRD
Radio Corporation of America.

BLUEPLATES
Sprague Electric Co.

BM-100
Miller Labs., August E.

B-NOBATRON
Sorensen & Co., Inc.

B. O. ELIMINATOR
Perfection Electric Co.

BOARDMASTER
Universal Drafting Machine Corp.

BOFFLE
Hartley Products Co.

BOGENPHONE
Bogen Co., Inc., David.

BOLTAFLX
General Tire & Rubber Co., The.

BOLTA-GRAY
The General Tire & Rubber Co.,
Bolta Products Div.

BOLTARON
Bolta Products Div. The General Tire &
Rubber Co.

BOLTATOP
Bolta Products Div., General Tire &
Rubber Co.

BOLT-O-SEAL
Wolfe Co., Franklin, Div. of the Parker
Appliance Co.

BONDEZE
Phelps Dodge Copper Products Co.

BONDMASTER
Rubber & Asbestos Corp.

BONDOLITE
Goodyear Aircraft Corp.

BONDRITE
UBS Chemical Co., Inc.

BOND-ROD
Sherman Mfg. Co., H. B.

BONDWICH
Metals & Controls Corp.,
General Plate Div.

BONNYTAPE
Bonny Mfg. Corp.

BOOST-A-VOLT
Workman TV, Inc.

BOR-AL-SIL
Bird Co., Richard H.

BORG WARNER
B-J Electronics

BORG WARNER
Rollin Co.

BORO-CARBOFILM
Aerovox Corp.

BOROFILM
Aerovox Corp.

BOROHM
Shallcross Mfg. Co.

BORON X
Technicraft Co.

BOSCAR
Benson-Lehner Corp.

BOSIPT
Workman TV, Inc.

BO TENNA
Radio Merchandise Sales, Inc.

BO TI
Fretco Inc.

BOW-FLECTOR
J F D Mfg. Co., Inc.

BOW-TIE
J F D Mfg. Co., Inc.

BOWTIE-FLECTOR
J F D Mfg. Co., Inc

BOXSEAL
Palsley Products Inc.

BOY-MAR
Electrical Service Co.

BRADLEY
De Jur-Amsco Corp.

BRADLEYDENSER
Allen-Bradley Co.

BRADLEYLEAK
Allen-Bradley Co.

BRADLEYOHM
Allen-Bradley Co.

BRADLEYOMETER
Allen-Bradley Co.

BRADLEYSTAT
Allen-Bradley Co.

BRADLEYSWITCH
Allen-Bradley Co.

BRADLEYUNIT
Allen-Bradley Co.

BRANDES
Cannon Co., C. F.

BRALOY
Brainin Co., C. S.

BRAND-FIVE
Ferrodynamics Corp.

BRAZALOY
All-State Welding Alloys Co., Inc.

BRAZE-CLAD
American Silver Co., Inc.

BRAZO
Linde Air Products Co.
Unit of Union Carbide & Carbon Corp.

BRENKERT
Radio Corp. of America.

BRELSCO
British Electronics Sales Co.

BRENCO
Bristol Engineering Corp.

BRIDGER
Audio Instrument Co., Inc.

BRILLIANTONE
Acton Co., H. W.

BRIMAR
Standard Telephones & Cables, Ltd.

BRINELCO
Brinnell Co., The

BRISTO
Bristol Co., The

BROADBAND
Racon Electric Co.

BROAD BAND
Topatron, Inc.

BROADCASTER
Reeves Soundcraft Corp.

BROADCASTER
Universal Drafting Machine Corp.

BRONCO
Metals & Controls Corp.
General Plate Div.

BRONCO
Western Insulated Wire Co.

BRONZIDITE
J. F. D. Mfg. Co., Inc.

BROWN
Minneapolis-Honeywell Regulator Co.

BROWN DEVIL
Ohmite Mfg. Co.

BROWN HILL
R-F Electronics, Inc.

BRUSHMASTER
Rubber & Asbestos Corp.

BRYANT
Westinghouse Electric Corp.

BUCCANEER
Hudson American Corp.

BUCKEY BRAND
Tubular Rivet & Stud Co.

BUG
Vibroplex Co., Inc.

BUILT IN WATCHMAN
Westinghouse Electric Corp.

BUILT-ON
Radion Corp.

BULLGOG
Phelps Dodge Copper Products Corp.

BULL'S EYE
Fischer & Porter Co.

BULLS-I-UNITS
Kirkland Co., H. R.

BULPLATE
Sprague of Wisconsin, Inc.

BUNA-FLEX
Auburn Mfg. Co.

BUNNY-GARD
Television Accessories Co.

BUSHEND
Buchanan Electrical Products Corp.

BUSS
Bussmann Mfg. Co.

BUTACITE
du Pont de Nemours Co., Inc., E. I.

BUTARONE
General Cable Corp.

BUTTON
Erie Resistor Corp.

BUZZ-TIME
Industrial Timer Corp.

B&W
Barker & Williamson

BW COPYFLEX
Bruning Co., Inc., Charles

BYRON JACKSON
Rollin Co.

C-8
G-V Controls, Inc.

C-B
Caddell Burns Mfg. Co.

CAC
Communication Accessories Co.

- CBWT Automatic Metal Products Co.
CCC Chicago Condenser Corp.
C-D-F Continental-Diamond Fibre Co.
CDM Curtis Development & Mfg. Co.
CDP Electro Voice, Inc.
CDX X-Ray Dept. of General Electric Co.
C-H Cutler-Hammer, Inc.
CAACITESTER Teletest Instrument Corp.
CABLE & DRUM Fischer & Porter Co.
CADET Raytheon Mfg. Co.
CADO Electromotion Co.
CAE Controlled Atmosphere Enclosures Corp.
CALBENT California Bent Glass Co.
CAL-CONN Cal-Connector Co.
CALIFILM Shamban & Co., W. S.
CALIVOLTER Calidyne Co.
CALLMASTER Lyman Electronics Corp.
CALMAG California Magnetic Control Corp.
CAL-MET Richardson Co.
CALOMIC Telegraph Construction & Maintenance Co., Ltd.
CALPRINT California Bent Glass Co.
CALTRON Caltron Co.
CAMBIRCROID American Electric Cable Co.
CAMCO Camburn, Inc.
CAMTROL Lear, Inc.
CANADIAN Measurement Engineering, Ltd.
CANDOC Cudner & O'Connor Co.
CANDOHMS Mutter Co.
CANNON-BALL Cannon Co., C. F.
CANSEAL Cannon Electric Co.
CAPACOMETER Simpson Electric Co. Div. of American Gage & Machine Co.
CAPASWITCH Mullenbach Div. of Electric Machinery Mfg. Co.
CAPACILOG Barber-Colman Co.
CAPACIPROBE Epsco, Incorporated.
CAPACITROL Barber-Colman Co.
CAPE COD NAVIGATOR Raytheon Mfg. Co.
CAPITRON Amp. Inc.
CAPR Camburn, Inc.
CAPRISTOR Jeffers Electronics Div., Speer Carbon Co.
CAP-SUBBER Sprague Electric Co.
CAPTI VATED Staver Co., Inc.
CARBAMP Red Bank Div., Bendix Aviation Corp.
CARBIC Linde Air Products Co. Unit of Union Carbide & Carbon Corp.
CARBO-DUR Permutit Co.
CARBOFILM Aerovox Corp.
CARBOLITE Linde Air Products Co. Unit of Union Carbide & Carbon Corp.
CARBOMITE Continental Carbon, Inc.
CARBON-COAT Electra Mfg. Co., Resistor Div.
CARBONYL General Dyestuff Corp.
CAR CALL Seeley Electronics.
CARDAX Electro-Voice, Inc.
CARDIALYZER Kay Electric Co.
CARDIETTE Sanborn Co.
CARDINAL Midland Mfg. Co.
CARDIOSCRIBE X-Ray Dept. of General Electric Co.
CARDIOTRON American Machine & Foundry Co.,
Electronics Div.
CARDYNE Electro-Voice, Inc.
CAREER Ampro Corp.
CARILLON DYNAMIC Miller Mfg. Co., M. A.
CARITRON Sheffield Corp., The
CARL MEYER Burke & James, Inc.
CARLITE Armco Steel Co.
CARLITE Bogue Electric Mfg. Co.
CARLTON Hudson Lamp Co.
CARRON United Pressed Products Co.
CARRON-AIRE Carron Mfg. Co.
CARRY PHONE Union Switch & Signal Div. of Westinghouse Air Brake Co.
CARTEL Electro-Craft Industries, Inc.
CARTWHEEL Aerovox Corp.
CARTRJ-DRY Pyramid Electric Co.
CARY Applied Physics Corp.
CASCADE Audio Industries.
CASCADE Linde Air Products Co. Unit of Union Carbide & Carbon Corp.
CASCADE YAGI J F D Mfg. Co., Inc.
CASCAMITE The Borden Co., Chemical Division.
CASCO The Borden Co., Chemical Division.
CASCODE J F D Mfg. Co., Inc.
CASCODE AUTOBOOSTER Industrial Television, Inc.
CASCOPHEN The Borden Co., Chemical Division.
CASCOREZ The Borden Co., Chemical Division.
CASTIPLAST National Engineering Products, Inc.
CASTOIM Shallcross Mfg. Co.
CASTOMATIC Federated Metals Div., American Smelting & Refining Co.
CASTORDAG Acheson Colloids Co.
CAST-X Acma Electric Heating Co.
CATABOND Catalin Corp. of America
CATAPAK Catalin Corp. of America
CATAVAR Catalin Corp. of America
CATHALOV Superior Tube Co.
CATHODE NICKEL Driver Co., Wilbur B.
CATHODE-RAY STETHOSCOPE Feiler Engineering & Mfg. Co.
CATHODRAM Telegraph Condenser Co., Ltd.
CATHODRAY Telegraph Condenser Co., Ltd.
CATHOUISER Cinema-Television, Ltd.
CATHOVISOR Cinema-Television, Ltd.
CAT'S EYE Ess Specialty Corp.
CAVITRON Woodwelding, Inc.
CAVI-TUNER Radio Receptor Co.
CCO Billey Electric Co.
C-CLAMP Fischer & Porter Co.
C-D SEAL Cornell-Dubilier Electric Corp.
COR Radiant Corp.
CDR ROTOR Radiant Corp.
CECILIAN Pickard & Burns, Inc.
CECOTITE Cook Electric Co.
CEE-COR Permoflux Corp.
CELAB Clark Electronic Labs.
CELASCREEN Celanese Corp. of America.
CELCON Celanese Corp. of America
CELECTRAY Weston Electrical Instruments Corp.
CELLO-BOND Paisley Products, Inc.
CELLULOID Celanese Corp. of America
CELORON Continental-Diamond Fibre Corp.
CENCO Central Scientific Co.
CENCO-HYVAC Central Scientific Co.
CENCO-MEZAVAC Central Scientific Co.
CENCO-SUPERVAC Central Scientific Co.
CENTER-LINE Topatron, Inc.
CENTILATOR Kay Electric Co.
CENTRATHENE Centralab Div. of Globe-Union, Inc.
CENTRE-KOOLED Sarkes Tarzian Inc.
CEN-TRI-CORE Alpha Metals, Inc.
CENTRICORES Magnetic Metals Co.
CENTROID Tensor Electric Development Co.
CENTURY Electro-Voice, Inc.
CENTURY TELECEIVERS Industrial Television, Inc.
CERAFIL Aerovox Corp.
CERAMALLOY New Process Metals, Inc.
CERAMAG Stackpole Carbon Co.
CERAMAGNET Stackpole Carbon Co.
CERAMELEX Erie Resistor Corp.
CERAMICAPS Mutter Co.
CERAMICON Erie Resistor Corp.
CERAMIKIT Sprague Electric Co.
CERAMISTOR Glenco Corp.
CERA-MITE Sprague Electric Co.
CERAM-OHM G-C Electronics Mfg. Co., Div. of G-C
CEREX Monsanto Chemical Co. Plastics Div.
CERISSO Isolantite Mfg. Corp.
CEROC Sprague Electric Co.
CER-OHM Bradford Components, Inc.
CERON Sprague Electric Co.
CERRO BASE Cerro De Pasco Sales Corp.
CERROBEND Cerro De Pasco Sales Corp.
CERROCAST Cerro De Pasco Sales Corp.
CERROLOW Cerro De Pasco Sales Corp.
CERROMATRIX Cerro De Pasco Sales Corp.
CERROSAFE Cerro De Pasco Sales Corp.
CERROSEAL-35 Cerro De Pasco Sales Corp.
CEROTRU Cerro De Pasco Sales Corp.
CERTAIN CURTIN Hayes Inc., C. I.
CETRON Continental Electric Co.
CHALLENGER Bogen Co., Inc., David
CHALLENGER Rek-O-Kut Co., Inc.
CHAMPION Channel Master Co.
CHAMPION Crucible Steel Co. of America
CHAMPION Permoflux Corp.
CHAMPION No. 180 Division Lead Co.
CHANALYST Radio Corporation of America
CHANGE-A-CYCLE Carter Motor Co.
CHANGE-A-VOLT Carter Motor Co.
CHAN-L-MOUNT Lord Mfg. Co.
CHANNEL AUTOBOOSTER Industrial Television, Inc.
CHANNELOCK Radio Engineering Labs., Inc.
CHARACTRON Stromberg-Carlson Co. Div. of General Dynamics Corp.
CHARGALYZER Christie Electric Corp.
CHARGATROL Assembly Products Co.
CHARGICATOR Hickok Electrical Instrument Co.
CHARG-O-MATIC Hertner Electric Co.
CHASS-EZ General Cement Mfg. Co.
CHEER Aerolux Lights Corp.
CHEMACO Koppers Co.
CHEMALLOY-KAHL Chemalloy Electronics Corp.
CHEMELEC U. S. Gasket Co.
CHEMESEAL U. S. Gasket Co.
CHEMETCH Automatic Processing Corp.
CHEMIFLEX Technicraft Co.
CHEMIGLAS Technicraft Co.
CHEMIGUM Goodyear Tire & Rubber Co.
CHEM-INERT Lennard Co., Inc., P. M.
CHEMLON Crane Packing Co.
CHEM-O-SOL Chemical Products Corp.
CHEMROK Richardson Co., The
CHEMSTONE Johns-Manville
CHEMXORK Electro Chemical Engineering Co.
CHEROKEE Sangamo Electric Co.
CHEVRON Garlock Packing Co., The.
CHIEF Audio Equipment Co., Inc.
CHIEFTAIN Sangamo Electric Co.
CHILCO Chicago Miniature Lamp Works.
CHIME-MATIC Executone, Inc.
CHITRAN Chicago Standard Transformer Corp.
CHLORINOL Sprague Electric Co.
CHROMABAR Kay Electric Co.
CHROMADOT Kay Electric Co.
CHROMALIZER Malco Co., Inc.
CHROMALOX Wiegand Co., Edwin L.
CHROMALYZER Telechrome, Inc.
CHROMASCOPE Telechrome, Inc.
CHROMASOL Ward Leonard Electric Co.
CHRONOTAP Spencer-Kennedy Labs., Inc.
CHROMMASTER Ward Leonard Electric Co.
CHROMAX Driver-Harris Co.
CHROMEL Hoskins Mfg. Co.
CHROMEL P Hoskins Mfg. Co.
CHROMOLYTIC Micamold Electronics Mfg. Corp.
CHRONISTOR Bergen Laboratories
CHRONOHM Red Bank Division, Bendix Aviation Corp.
CHRONO-SPRAY Paragon Electric Co.
CHRONOTEST Sticht Co., Inc., Herman H.
CHRONOTHERM Minneapolis-Honeywell Regulator Co.
CHRONOTRON Red Bank Div. Bendix Aviation Corp.
CIBANITE Ciba Company, Inc.
CICRO MICROPOSITIONER Barber-Colman Co.
CIMET Driver-Harris Co.
CINELIGHT Dormitzer Electric & Mfg. Co., Inc.
CINCH National Lead Co.
CINELITE Mole-Richardson Co.
CINEMA Aerovox Corp.
CINEVISION Calbest Engineering & Electronics Co.
CINE-VOICE Berndt-Bach Inc.
CINTEL Cinema-Television, Ltd.
CINTEL Marconi Instruments.
CIRCLE Hogan Laboratories, Inc.
CIRCLE 2 Sprague Electric Co.

- CIRCLE B**
Bristol Motor Div.,
Vocaline Company of America.
- CIRCLE COMPUTER**
Hogan Laboratories, Inc.
- CIRCLE ESS**
Stewart Corp., Q. W.
- CIRCLLET**
Trumbull Dept. of General Electric Co.
- CIRCLE-VANE**
Ward Products Corp., Div., Gabriel Co.
- CIRCON**
Universal Circuit Controls Corp.
- CIRCUIT**
Heinemann Electric Co.
- CIRCUITMASTER**
Fordham Mfg. Co.
- CIRCUTROL**
Kollman Instrument Corp.
- CK**
Farmer Electric Products Co., Inc.
- CK**
Raytheon Mfg. Co.
- "CL"**
Alpha Wire Corp.
- CLAMPIPE**
Mueller Electric Co.
- CLARKSTAN**
Pacific Transducer EBG Corp.
- CLARO**
Clarostat Mfg. Co., Inc.
- CLASSIC**
Jensen Industries, Inc.
- CLEAR-PIX**
Superex Electronics Corp.
- CLEAR-PRINT**
Phillips Process Co., Inc.
- CLEARSITE**
Economy Fuse & Mfg. Co.
- CLEARSONIC**
U. S. Television Mfg. Corp.
- CLETRON**
Cleveland Electronics, Inc.
- CLEVELITE**
Cleveland Container Corp.
- CLEVITE**
Transistor Products, Inc.
- CLIMATE-LAB**
American Instrument Co., Inc.
- CLIMATITE**
Triad Transformer Corp.
- C LINE**
Clarostat Mfg. Co., Inc.
- CLIPMASTER**
Clegg Laboratories, Div. of Clegg, Inc.
- CLIP ON**
Ferranti Electric, Inc.
- CLIPPER**
Johns-Manville
- CLIPPER**
Sterling Transformer Corp.
- CLIPPER SEALS**
Johns-Manville
- CLOCKTIMER**
International Register Co.
- CLORINOL**
Spraue Electric Co.
- CLOSTEMP**
Westinghouse Electric Corp.
- CLOVER-V-BEAMS**
Telrex, Inc.
- CML**
Communication Measurements Lab., Inc.
- CMR**
Assembly Products, Inc.
- COAST CABLE**
Pacific Electriccord Co.
- COATINGAGE**
Branson Instruments, Inc.
- CO-AX**
Transradio Ltd.
- COAXITUBE**
Precision Tube Co., Inc.
- COAXWITCH**
Bird Electronic Corp.
- COBANIC**
Driver Co., Wilbur B.
- COBENIUM**
Driver Co., Wilbur B.
- COC**
Hammarlund Mfg. Co., Inc.
- CODUR**
Maas & Waldstein Co.
- COHARDITE**
Connecticut Hard Rubber Co.
- COHRLASTIC**
Connecticut Hard Rubber Co.
- COILITE**
National Vulcanized Fibre Co.
- COIL KRAFT**
Hartford City Paper Co.
- COINRAD**
Northeastern Engineering, Inc.
- COINVIDEO**
Coradio, Inc.
- COLONIAL**
Sylvania Electric Products, Inc.
- COLORBRITE**
Eberhard Faber Pencil Co.
- COLORCORD**
Pacific Electriccord Co.
- CLOREDE**
Instrument Development Laboratories, Inc.
- COLOR-EYE**
Instrument Development Laboratories, Inc.
- COLORMASTER**
Manufacturers Engineering & Equipment Co.
- COLORSCOPE**
Simpson Electric Co., Div. of American Gage & Machine Co.
- COLOR-TENNA**
JFD Mfg. Co., Inc.
- COLORTOP**
Trico Fuse Mfg. Co.
- COLORTRONIC**
Thomas Electronics, Inc.
- COMANCHE**
Sangamo Electric Co.
- COMCO**
Communications Co., Inc.
- COMET**
Astron Corp.
- COMET**
Driver-Harris Co.
- COM-ETTE**
Webster Electric Co.,
- COMMAIRE**
Avionex Electronics Corp.
- COMMANDAIR**
J F D Mfg. Co., Inc.
- COMMULAC**
Martindale Electric Co.
- COMMUNICATOR**
West Coast Electronics Co.
- COMMUNO-PHONE**
Bogen Co., Inc., David
- COMMUTATOR RESURFACERS**
Ideal Industries, Inc.
- COMPAC**
A.C.F. Electronics
- COMPACT**
General Cable Corp.
- COMPACTUATOR**
Air Associates, Inc.
- COMPAIRATOR**
Taft-Peirce Mfg. Co.
- COM-PAK**
Lambda Electronics Corp.
- COMPAR**
Goodyear Tire & Rubber Co.
- COMPA-STATION**
Motorola, Inc.
- COMPENTROL**
Centralab Div. of Globe-Union, Inc.
- COMPO**
Muter Co.
- COMPOUND DIFFRACTION PROJECTOR**
Electro-Voice, Inc.
- COMPREGNITE**
Borden Co., The, Chemical Div.
- COMP-U-TRIM**
Eastern Precision Resistor Corp.
- COMSPEC**
Instrument Motors
- COMTEL**
Radio Frequency Labs., Inc.
- COMTONE**
Communications Co., Inc.
- COMVOR**
Radio Frequency Labs., Inc.
- CONALERT**
Kaar Engineering Corp.
- CON-AM**
Astatic Corp.
- CONCERT**
Jensen Industries, Inc.
- CONCERT GRAND**
Stewart-Warner Corp.
- CONCERT-LINE**
Shure Brothers, Inc.
- CONCERTO**
Jensen Mfg. Co.
- CONCERTONE**
Berlant Concertone-Audio Div. of American Electronics Inc.
- CONDENS-O-WELD**
Westinghouse Electric Corp.
- CONDEX**
Simplex Wire & Cable Co.
- CONDOR**
Raybestos-Manhattan, Inc.
- CONDUCTALUTE**
Sauereisen Cements Co.
- CONDUX**
Hardman Co., Inc., H. V.
- CON-ELCO**
Edcliff Instruments
- CONELRAD**
Kaar Engineering Corp.
- CONELRADIO**
Aircraft Armaments, Inc.
- CON-FEE-PHONE**
Simpson Mfg. Co., Inc., Mark
- CONFIDENCER**
Roanwell Corp.
- CONETIC**
Perfection Mica Co.
- CONFESSIONAIRE**
Audio Equipment Co., Inc.
- CONFIDENCER**
Roanwell Corp.
- CONFLEX**
Metals & Controls Corp., General Plate Div.
- CONICAL-V-BEAM**
Telrex Inc.
- CONNECTRONICS**
Continental Connector Corp.
- CONNSONATA**
Conn Ltd., C. G.
- CONNSONETTE**
Conn Ltd., C. G.
- CONNTENNA**
Connecticut Telephone & Electric Corp.
- CONOLITE**
Continental Can Co., Inc.
- CONPERNIK**
Westinghouse Electric Corp.
- CONSISTORATOR**
Fischer & Porter Co.
- CONSOLLETTE**
Ampro Corp.
- CONSOLIDATED**
Manning, Maxwell & Moore Inc.
- CONSTAVAC**
Green Rectifier Co.
- CONSTELLATION**
JFD Mfg. Co., Inc.
- CONSTRUCT-O-GRIP**
Technology Instrument Corp.
- CON-TAC-TOR**
Minneapolis-Honeywell Regulator Co.
- CONTINENTAL**
DeJur-Amsco Corp.
- CONTINUOUS BALANCE**
Minneapolis-Honeywell Regulator Co.
- CONTROFLEX**
Eagle Signal Corp.
- CONTROL-A-MATIC**
Rockwell Engineering Co.
- CONTROLARC**
Vickers Electric Div., Vickers, Inc.
- CONTROLITE**
Ward Leonard Electric Co.
- CONVECTRON**
Red Bank Div.
- Bendix Aviation Corp.**
- CONVERS-O-CALL**
National Inter-Communication Systems, Inc.
- CONVOTROL**
Automatic Electric Sales Corp.
- COOK SOUNDS OF OUR TIMES**
Cook Laboratories Inc.
- COOLER-PROOF**
Paisley Products Inc.
- COORDINATED PROCESS CONTROL**
Bristol Co., The
- COPACO**
Cottrell Paper Co., Inc.
- COPEL**
Hoskins Mfg. Co.
- COPOLENE**
Amphenol Electronics Corp.
- COPPERBRITE**
London Chemical Co.
- COPRENE**
Mass & Waldstein Co.
- COPROX**
Bradley Labs., Inc.
- COPYFLEX**
Bruning Co., Inc., Charles
- COPYMASTER**
Peck & Harvey Mfg. Corp.
- CORAL DESIGNS**
Dietz Co., Henry G.
- COREPROOF**
Magnetic Metals Co.
- CORKOUSTIC**
Armstrong Cork Co.
- CORO-GRAD**
Minnesota Mining & Mfg. Co.
- COROHM**
Aerovox Corp.
- COROHON**
Hi-Q Div., Aerovox Corp.
- CORONATEST**
Network Mfg. Corp.
- CORONATION**
Interelectronics Corp.
- CORONOX**
Westinghouse Electric Corp.
- COROX**
Westinghouse Electric Corp.
- CORRIB**
Ohmite Mfg. Co.
- CORSAIR**
Hudson American Corp.
- CORSAIR**
JFD Mfg. Co., Inc.
- CORULITE**
Premax Products Div. Chisholm-Ryder Co., Inc.
- CORVETTE**
JFD Mfg. Co., Inc.
- CORWICO**
Cornish Wire Co.
- COSMALITE**
Cleveland Container Co., The
- CO-SPIRAL**
Stephens Mfg. Corp.
- COSSOR**
Barker Sales Corp.
- CO-THERM**
Hopkins Engineering Co.
- COTO**
Coto-Coil Co., Inc.
- COTTONITE**
Acme Wire Co.
- COUNTERPOISE**
Cook Electric Co.
- COUNTOMATIC**
Instrument Development Labs.
- COUPLATE**
Centralab Div. Globe-Union Inc.
- COX**
Commercial Research Labs., Inc.
- COX**
Boston Insulated Wire & Cable Co.
- COXPROX**
Bradley Labs.
- CP-2**
Cast Optics Corp.
- CPPC**
Clifton Precision Products Co., Inc.
- CR-39**
Cast Optics Corp.
- CRKB**
Capps & Co., Inc.
- CRL**
Centralab Div. of Globe-Union, Inc.
- CRAPO**
Indiana Steel & Wire Co.
- CREME-O-WAX**
General Cement Mfg. Co.
- CRESTBRITE**
Crest Transformer Corp.
- CRESTRAN**
Crest Transformer Corp.
- CRESTROL**
Crest Transformer Corp.
- CRESTWOOD**
Daystrom Electric Corp.
- CRISE**
Acro Mfg. Co.
- CRO-ART**
Croname, Inc.
- CROFLEX**
Croname, Inc.
- CROFLEX**
Waldom Electronics Inc.
- CROLITE**
Aerovox Corp.
- CROLITE MAGICORE**
Aerovox Corp.
- CROLOY**
Aerovox Corp.
- CROMAG**
Aerovox Corp.
- CROMALOY**
Linde Air Products Co. Unit of Union Carbide & Carbon Corp.
- CROMAX**
Aerovox Corp., Pacific Coast
- CROMEL-ALUMEL**
Hoskins Mfg. Co.
- CROMESH**
Croname, Inc.
- CROMIND**
Driver Co., Wilbur B.,
- CRONAME**
Waldom Electronics Inc.
- CROROTO**
Croname, Inc.
- CROROTO**
Waldom Electronics, Inc.
- CROWE**
Croname, Inc.
- CROWELD**
Croname, Inc.
- CROWLEY**
Aerovox Corp.
- CROWN**
International Radio & Electronics Corp.
- CRUCIBLE WELD**
Westinghouse Electric Corp.
- CRUSADER**
Hudson American Corp.
- CRUSADER**
Transitron, Inc.
- CRUCAST**
Crucible Steel Company of America.
- CRUSFIDER**
Hudson American Corp.
- CRYSTALEAR**
Brush Electronics Co.
- CRYSTALIGNED**
Magnetic Metals Co.
- CRYSTALINER**
Monitor Products Co.
- CRYSTOGRAPH**
Offner Electronics, Inc.
- CRYSTOLON**
Norton Co.
- C-S**
Felt Products Mfg. Co.
- C S P**
Westinghouse Electric Corp.
- CTS**
Chicago Telephone Supply Corp.
- CTS**
Chicago Telephone of California, Inc.
- CUEMETER**
Lear, Inc.
- CUE TAPE**
Rangertone, Inc.
- CUNICO**
Arnold Engineering Co.
- CUNIFE**
Arnold Engineering Co.
- CUNNINGHAM**
Radio Corp. of America
- CUPALOY**
Westinghouse Electric Corp.
- CUPROCHROME**
Driver Co., Wilbur B.
- CUPRON**
Driver Co., Wilbur B.
- CUPROVAC-E**
Vacuum Metals Corp.
- CURTAIN OF LIGHT**
Electronic Control Corp.

CUSHIONED-POWER
Robotron Corp.

CUSHIONTONE
Armstrong Cork Co.

CUSIL
Western Gold & Platinum Co.

CUSTOM
Precision Radiation Instruments, Inc.

CUSTOM MASTER
Post & Co., Frederick

CUSTOM FOUR HUNDRED
Stromberg-Carlson Co., Div. of General Dynamics Corp.

CUSTOMODE
Jensen Mfg. Co.

CUTAWL
International Register Co.

C. W. C.
Continental Wire Corp.

CYCOLAC
Marbon Corp.

CYCLE-PROGRESS
Automatic Temperature Control Co.

CYCLELOG
Foxboro Co., The

CYCL-FLEX
Eagle Signal Corp.

CYCLO-FLEX
Wilson & Co., G. C.

CYCLOHM
Howard Industries, Inc.

CYCLO-RAY
Friez Instrument Div.
Bendix Aviation Corp.

CYCLOTROL
Cyclotron Specialties Co.

CYCLOTROL
Minneapolis-Honeywell Regulator Co.

CYMEL
American Cyanamid Co.

CYPAK
Westinghouse Electric Corp.

D 54
Mallory & Co., Inc., P. R.

"D" NICKEL
International Nickel Co., Inc.

DAG
Acheson Colloids Co.

DAGE
Thompson Products, Inc.

DAGLAS
Phelps Dodge Copper Products Corp.

DAGLAS
Acme Wire Co.

DAISY BLIND
Hudson American Corp.

DAKA-WARE
Davies Molding Co., Harry

DALBAR
Electronic Enterprises

DALE
Electronic Development Co.

DALMOTRON
Dalmo Victor Co.

DALOHM
Dale Products, Inc.

DAMASCENE
Linick Chemical Co.

DANCO
Daniels, Inc., C. R.

DANDEE
Aerovox Corp.

DA-NITE
Bendix Aviation Corp.

DAPON
Ohio-Apex Div., Food Machinery & Chemical Corp.

DARCON
du Pont de Nemours & Co., Inc., E. I.

DAREX "FLOWED-IN"
Dewey & Almy Chemical Co. Div. of W. R. Grace Co.

DATAGRAPH
Consolidated Electrodynamics Corp.

DATALAB
Consolidated Electrodynamics Corp.

DATA-LINER
Hanson-Gorrill-Brian, Inc.

DATAMASTER
Consolidated Electrodynamics Corp.

DATA-MASTER
Hanson-Gorrill-Brian, Inc.

DATRAC
Epsco, Incorporated,

DATAREADER
Electro Data Corp.

DATASYNC
Berndt-Bach, Inc.

DATA-TAB
Hupp Electronics Co., A Div. of Hupp Corp.

DATA TAPE
Consolidated Electrodynamics Corp.

DATATRON
Electro Data Corp.

DATA-VISION
Dage Television Div. of Thompson Products, Inc.

DAUNTLESS
Defiance Engineering & Microwave Corp.

DAVENOIL
Daven Co.

DAVOHM
Daven Co.

DAZIC
Winterburn Mfg. Co.

DBPC
Koppers Co., Inc.

DC SILICONES
Dow Corning Corp.

DE-ACIDITE
Permutit Co.

DECADIAL
Ford Engineering Co. Inc.

DECI
Dwyer Engineering Co., Inc.

DECITRON
Post Machinery Co.

DE FOREST
Radio Corp. of America

DECASWEEP
Decade Instrument Co.

DECAFIER
Decade Instrument Co.

DECALATOR
Decade Instrument Co.

DECAVIDER
Decade Instrument Co.

DECOHM
Davis Electric Co.

DEFOREST
Radio Corp. of America

DE-FROST-IT
Paragon Electric Co.

DEHYDRA
Wappler, Inc.

DE-ION
Westinghouse Electric Corp.

DEKABOX
Electro-Measurements, Inc.

DEKABRIDGE
Electro-Measurements, Inc.

DEKAPACITOR
Electro-Measurements, Inc.

DEKAPOT
Electro-Measurements, Inc.

DEKASTAT
Electro-Measurements, Inc.

DEKATRON
Baird-Atomic, Inc.

DEKA-XTAL
Scientific Radio Products Co.

DELCO
General Motors Corp.

DELPEC
Centralab Div. of Globe-Union, Inc.

DELTABESTON
General Electric Co.

DELTAMAX
Allegheny Ludlum Steel Corp.

DELTAMAX
Arnold Engineering Co.

DELTA PLY
Dearborn Electronic Labs., Inc.

DELTASWITCH
Detroit Controls Corp.

DELTA-TENNAS
Western Gear Corp.,
Electro Products Div.

DELTA-WELD
Channel Master Co.

DELUXE
Precision Radiation Instruments, Inc.

DEMCO
Defiance Engineering & Microwave Corp.

DEMCO
Dormitzer Electric & Mfg. Co., Inc.

DEMINERALIZER
Barnstead Still & Sterilizer Co. Inc.

DENSICHRON
Welch Scientific Co., W. M.

DENSITE
West Virginia Pulp & Paper Co.

DENSI-TINER
Lekra Laboratories

DEOXIDINE
American Chemical Paint Co.

DEOXO
Baker & Co., Inc.

DEPTHOMETER
Bludworth Marine Div., Kearfott Co., Inc.

DERLIKOR
Associated American Trading Division.

DERMITRON
Unit Process Assemblies, Inc.

DERVIMETER
Gerber Scientific Instrument Co.

DESCO
Dietz Design & Mfg. Co.

DESK-FAX
Western Union Telegraph Co.

DESKTOPPER
Universal Drafting Machine Corp.

DETECT-A-FIRE
Fenwal, Inc.

DETECTOLAB
BJ Electronics, Borg-Warner Corp.

DETECTOMETER
Dillon & Co., Inc., W. C.

DEREMOHN
Ohmite Mfg. Co.

DETI-RATED
Foote Brothers Gear & Machine Corp.

DEVELCO
Development Engineering Co.

DEW POINTER
Illinois Testing Labs., Inc.

DIACLOR
Sangamo Electric Co.

DIACONE
Altec Lansing Corp.

DI-ACRO
O'Neil-Irwin Mfg. Co.

DIAGNOMETER
Supreme, Inc.

DIAL-A-MATIC
American Photocopy Equipment Co.

DIALAMATIC
JFD Mfg. Co., Inc.

DIALCO
Dialight Corporation

DIALGLO
Ackerman Engravers

DIALSAW
Erwood, Inc.

DIALX
Stromberg-Carlson Co.

DIAMACONTROL
Standard Electronics Research Corp.

DIAMATROL
Standard Electronics Research Corp.

DIAMOND
Continental-Diamond Fiber Corp.

DIAMOND
Tetrad Corp.

DIAMOND G
Garrett Co., Inc., G. K.

DIAMOND-H
Hart Mfg. Co.

DIAMOND PRODUCTS
Garrett Co., Inc., George K.

DIAMOND WEAVE
Sickles Div., F. W. General Instrument Corp.

DIAMONITE
U. S. Ceramic Tile Co.

DIAMONTINE
Linick Chemical Co.

DIAPHLEX
Cook Electric Co.

DIATRON
Consolidated Engineering Corp.

DICO
Diamond Mfg. Co.

DICO
Diamond Antenna & Microwave Corp.

DICTABELT
Dictaphone Corp.

DICTACORD
Dictaphone Corp.

DICTALOG
Dictaphone Corp.

DICTATAPE
Dictaphone Corp.

DICTET
Dictaphone Corp.

DIEFLEX
Insulation Manufacturers Corp.

DI-FAN
Andrew Co.

DIFFAIAL
University Loudspeakers, Inc.

DIFFERENTIAL
Electro-Voice, Inc.

DIFFUSICONE
University Loudspeakers, Inc.

DIFFUSION PORT
Sieler Design Products.

DIFILM
Sprague Electric Co.

DI-FORMED
Precision Paper Tube Co.

DIGE * CODER
Fischer & Porter Co.

DIGESTER
Telecomputing Corp.

DIGICON
Anatran Engineering Corp.

DIGILOG
Librascope, Inc.

DIGIMATIO
Electronic Control Systems, Inc.

DIGIMATIC
Stromberg-Carlson Co., Div. of General Dynamics Corp.

DIGIPOT
Anatran Engineering Corp.

DIGIPULSER
Jacobs Instrument Co.

DIGISYN
Adcon Corp.

DIGITIZER
Coleman Engineering Co., Inc.

DIGIT-MATIC
Victor Adding Machine Co., Electronics Sales Div.

DIGITOMETER
Electro-Mec Laboratory, Inc.

DI JELL 171
Sonneborn Sons, Inc., L.

DILECTO
Continental-Diamond Fibre Corp.

DI-MAX
Armco Steel Corp.

DIMINUETTE
Permoflux Corp.

DIMMERETTE
Ward Leonard Electric Co.

DIMOMATIC
Malco Co., Inc.

DIOFLEX
Cook Electric Co.

DIPILOT
Dielectric Materials Co.

DIPOI
Servonics, Inc.

DIP PAK
Eldelity Chemical Products Corp.

DIPWITE
Special Chemicals Co.

DIPWRAP
Palsley Products Co.

DIRECT-A-CALL
Connecticut Telephone & Electric Corp.

DIRECT-DRIVE
Shure Brothers, Inc.

DIRECTION EXPOSURE SHIELD
Technical Operations, Inc.

DIRECTRON
Sanford Miller Co.

DIRON
Peerless Products Industries

DISCALOY
Westinghouse Electric Corp.

DISCAP CON
Sprague Electric Co.

DISCAPS
Radio Materials Corp.

DISCOHM
Ward Leonard Electric Co.

DISKCHANGERS
Webcor, Inc.

DISPATCHER
Motorola Inc.

DIVCO
Division Lead Co.

DIVCO HOT-ROZ
Division Lead Co.

DIVCO INTENSE-REZ
Division Lead Co.

DIVIDOHM
Ohmite Mfg. Co.

"DM"
Dage Electric Co.

DOBRO
Valco Mfg. Co.

DODO
JFD Mfg. Co., Inc.

DOG
Radio Corporation of America.

DOMEPAK
Sprague Electric Co.

DOMINO
Sprague Electric Co.

DONUT
Associated Research Inc.

DONWOOD
Sierra Electric Corp.

DORPHONE
Republic Electronic Industries Corp.

DOSIFILM
Reed-Curtis Nuclear Industries, Inc.

DOSIMETER
Bendix Aviation Corp., Cincinnati Div.

DOSIMETER
Instrument Development Labs.

DOT
United-Carr Fastener Corp.

D.O.T.
United Transformer Co.

DOUGLAS
British Industries Corp.

DOWMETAL
Dow Chemical Co.

DPR
Hardman Co., Inc., H. V.

DR
D & R, Ltd.

DRAFT-HORSE
Karp, Lawrence A.

DRAFTMASTER
Stacor Equipment Co.

DRAGNET
Radelco Mfg. Co.

DREADNOUGHT
Wall Mfg. Co.

DRILL HOLE
Precision Radiation Instruments, Inc.

DRI-FILM
General Electric Co.

DRIMETER
Fielden Instrument Div. of Robertshaw-Fulton Controls Co.

DRIOX
Linde Air Products Co.

DRI-STAT
Peerless Photo Products, Inc.

DRITHERM
North American Electric Lamp Co.

DRUM-KARRIER
Falstrom Co.

DRYGALV
American Solder & Flux Co.,

DU NOUY
Central Scientific Co.

DUA-CAPS
Centralab Div., Globe-Union, Inc.

DUAL DANDEE
Aerovox Corp.

DUAL LOCK
Simmons Fastener Corp.

DUALTRONIC
Goldak Co., Inc., The

DUART
Mass & Waldstein Co.

DUBL-X
Telrex, Inc.

DUCCO
Du Pont de Nemours & Co., Inc., E. I.

DUETTE
Jensen Mfg. Co.

- DULAC**
Maas & Waldstein Co.
- DULUX**
du Pont de Nemours & Co., Inc., E. I.
- DU-MITTER**
DuMont Laboratories, Inc., Allen B.
- DUNCO**
Struthers-Dunn, Inc.
- DUO**
J F D Mfg. Co., Inc.
- DUO-BAND**
Telrex, Inc.
- DUOCARB**
Driver Co., Wilbur B.
- DUO-CHROME**
Duotone Co., Inc.
- DUOCREX**
Horn Co., Inc., A. C.
- DUODE**
Beam Instruments Corp.
- DUODIAL**
Helipot Corp.
- DUODISC**
Duotone Co., Inc.
- DUODYNE**
Telex, Inc.
- DUO-FLEX**
Dumore Co., The
- DUOFONIC**
Paraplegics Mfg. Co., Inc.
- DUO-KAP**
Centralab Div. of Globe-Union, Inc.
- DUOLITE**
Pittsburgh Plate Glass Co.
- DUOLUX**
Masonite Corp.
- DUO MOUNT**
South River Metal Products Co.
- DU OP**
General Control Company
- DUO-PULSATOR**
Fischer & Co., R. A.
- DUOSCALE**
Tracerlab, Inc.
- DUOSEAL**
Welch Scientific Co., W. M.
- DUOSTAT**
Beckman Instruments, Inc.
- DUOTAPE**
Duotone Co., Inc.
- DUO-TENNA**
Waldom Electronics, Inc.
- DUOVOLT**
Carter Motor Co.
- DUPLATE**
Pittsburgh Plate Glass Co.
- DUPLEX**
Altec Lansing Corp.
- DUPLEXER**
Blonder-Tongue Laboratories, Inc.
- DUPRICAN**
Canadian Radium & Uranium Corp.
- DURO-VAC**
Glasseal Products Co.
- DURACOM**
Co-Operative Industries, Inc.
- DURAFLEX**
American Brass Co.
- DURAFLEX**
Co-operative Industries, Inc.
- DURALINE**
Universal Drafting Machine Corp.
- DURALON**
U. S. Stoneware Co.
- DURAMEG**
Sprague Electric Co.
- DURAMIC**
Aerovox Corp.
- DURAMOULD**
Dumont-Airplane & Marine Instruments, Inc.
- DURANICKEL**
International Nickel Co., Inc.
- DURANITE**
Aerovox Corp.
- DURATAPE**
Rahm Instruments, Inc.
- DURATEX**
Stromberg-Carlson Co.,
Div. of General Dynamics Corp.
- DURISITE**
U. S. Stoneware Co.
- DURITE**
Borden Co., Chemical Div.
- DUROTEST**
Dearborn Electronic Laboratories, Inc.
- DUROID**
Rogers Corp.
- DURPOINT**
Duotone Co., Inc.
- DUSTRAP**
Air Control Installations Ltd.
- DUSTRONIC**
Radex Corp.
- DUTCH BOY**
National Lead Co.
- DUTCH BRAND**
Johns-Manville.
- DUTI-RATED**
Foote Brothers Gear & Machine Corp.
- DUXSEAL**
Johns-Manville
- DUX-ALL**
CBC Electronics Co., Inc.
- D-XER**
JFD Mfg. Co., Inc.
- DX MASTERSPEAKERS**
DX Radio Products Co., Inc.
- DYEPRINT**
Times Facsimile Corp.
- DYKANOL**
Cornell-Dubilier Electric Corp.
- DYLAN**
Koppers Co., Inc.
- DYLENE**
Koppers Co., Inc.
- DYLITE**
Koppers Co., Inc.
- DYMIN-VANE**
Ward Products Corp., Div.
The Gabriel Co.
- DYNA-CHEK**
Western Gear Corp.,
Electro Products Div.
- DYNACO**
Dynamic Gear Co., Inc.
- DYNACONE**
Lord Mfg. Co.
- DYNACORD**
Applied Dynamics Corp.
- DYNAFLUX**
Pentron Corp.
- DYNAFOCAL**
Lear, Inc.
- DYNAGAGE**
Lord Mfg. Co.
- DYNAGRAPH**
Photocon Research Products
- DYNALOG**
Offner Electronics, Inc.
- DYNAMASTER**
Foxboro Co., The
- DYNAMATIC**
Bristol Co., The
- DYNA-METER**
Teletest Instrument Corp.
- DYNAMIKE**
Industrial Electronics, Inc.
- DYNA-MYKE**
Astatic Corp.
- DYNAMU**
Industrial Electronics, Inc.
- DYNA-PAK**
Maico Co., Inc.
- DYNAPORT**
Red Bank Div., Bendix Aviation Corp.
- DYNAPRENE**
Lear, Inc.
- DYNA-Q**
Whitney Blake Co.
- DYNA-QUICK**
K-W Engineering Works
- DYNARAY**
B & K Mfg. Co.
- DYNASCAN**
Dormitzer Electric & Mfg. Co., Inc.
- DYNASEAL**
B & K Manufacturing Co.
- DYNASET**
Dormitzer Electric & Mfg. Co., Inc.
- DYNASERT**
Telex, Inc.
- DYNATEQ**
United Shoe Machinery Corp.
- DYNATHERM**
Dynamics Research Associates Div. of
Universal Match Corp.
- DYNATROL**
American Diathermy Products, Inc.
- DYNATROPS**
Dynamics Research Associates Div. of
Universal Match Corp.
- DYNAURAL**
Lear, Inc.
- DYNAVAR**
Scott, Inc., Herman Hosmer
- DYNETRIC**
Allied Products Co.
Hamilton Watch Co.
- DYNETRIC**
Gisholt Machine Co.
- DYNOGRAPH**
Westinghouse Electric Corp.
- DYNOID**
Annis Co., R. B.
- DYNO-MITE**
Offner Electronics, Inc.
- DYNOMITE**
McQuay-Norris Mfg. Co.
- E A D**
Eastern Air Devices, Inc.
- EAI**
Electronic Associates, Inc.
- "E" NICKEL**
The International Nickel Co., Inc.
- EF**
Electric Furnace Co.
- E101**
Burroughs Corp.
- E-V**
Electro Voice, Inc.
- EARSET**
Telex, Inc.
- EASE**
Berkeley Division, Beckman Instruments,
Inc.
- EASYCAPS**
Waldom Electronics, Inc.
- EASYCOUPLER**
Waldom Electronics, Inc.
- EASY-FLO**
Handy & Harman
- EASY LISTENER**
Mitchell Industries, Inc.
- EASYPRODUCTS**
Waldom Electronics Inc.
- EASYSPLICE**
Waldom Electronics, Inc.
- EASY-VISION**
Hoffman Electronics Corp.
- EBCOR**
Ed-Berl Products, Inc.
- EBONOL**
Enthone, Inc.
- EBROK**
Richardson Co., The
- ECCO**
Emerson & Cuming Inc.
- ECCOBOND**
Triad Transformer Corp.
- ECCOFAM**
Emerson & Cuming, Inc.
- ECCOMOLD**
Emerson & Cuming, Inc.
- ECCO REFLECTOR**
Emerson & Cuming, Inc.
- ECCOSEAL**
Emerson & Cuming, Inc.
- ECCOSORB**
Emerson & Cuming, Inc.
- ECCOSTOCK**
Emerson & Cuming, Inc.
- ECHO**
Fort Wayne Metals Inc.
- ECHOPHONE**
Hallcrafters Co.
- ECHO-VOX**
Kay Electric Co.
- ECKCO**
Eckstein Radio & Television Co.
- ECO**
Economy Fuse & Mfg. Co.
- ECON**
Economy Fuse & Mfg. Co.
- ECONOMASTER**
Sonotone Corp.
- ECON-OHM**
Model Engineering & Mfg. Inc.
- ECONO-SLIDE**
Grant Pulley & Hardware Co.
- ECONOSTAT**
Barber-Colman Co.
- ECONO-SWITCH**
Centralab Div. of
Globe Union, Inc.
- ECONO-WATT**
Redmond Company, Inc.
- ECTROMAG**
Electronic Processes Corp.
- ECTROTHERM**
Electronic Processes Corp.
- EDDYSTONE**
Marconi Instruments
- EDGE LIT**
Ackerman Engravers
- EDGE-OHM**
Ward Leonard Electric Co.
- EDIPHONE**
Edison, Inc., Thomas A.
- EDIPHONE-TELEPHONE**
Edison Inc., Thomas A.
- EEOC**
Electronic Engineering Co. of California.
- EEL**
Electronic Enterprises Inc.
- EEPCO**
Electro Engineering Products Co.
- EFCON**
Electronic Fabricators, Inc.
- EGEN**
British Radio Electronics, Ltd.
- EGYPTIAN TIP**
Mitchell Industries, Inc.
- EI**
Electrical Industries, Inc.
- EICO**
Electronic Instrument Co., Inc.
- EIGHT-BALL**
Ward Products Corp.,
Div. of The Gabriel Co.
- EILEX**
Electro Engineering Works
- EILEX**
Electro Impulse Labs.
- EIMAC**
Eitel-McCullough, Inc.
- EKOMATIC**
Laboratoire Industriel de
Physique Appliquee.
- EKOTAPE**
Webster Electric Co.
- EKTAR**
Eastman Kodak Co.
- EKTRON**
Eastman Kodak Co.
- EL**
Electrons, Inc.
- ELASTICABLE**
Mutual Electronic Industries Corp.
- ELASTOBOND**
Paisley Products, Inc.
- ELASTOMER**
Kellogg Co., M. W.
- ELC**
Armco Steel Corp.
- ELCO**
Electronic Instrument Co., Inc.
- ELCOFONE**
Loral Electronics Corp.
- ELEDEC**
Electro Development Co.
- ELECOM**
Electronic Computer Div.,
Underwood Corp.
- ELECOTONE**
Northeastern Engineering, Inc.
- ELECTONE**
Electron Enterprises
- ELECTOUNITE**
Republic Steel Corp.
- ELECTRACER**
Special Products Co.
- ELECTRALLOY**
Circon Component Co.
- ELECTRICA**
Arnhold Ceramics, Inc.
- ELECTRICORD**
Pacific Electricord Company
- ELECTRITE**
West Virginia Pulp & Paper Co.
- ELECTRIX**
U. S. Rubber Co.
- ELECTROBOND**
Cavitron Electron Oscillator Co. Div. of
Short Wave Plastic Forming Co.
- ELECTRO-BOND**
Woodwelding, Inc.
- ELECTROC**
Sprague Electric Co.
- ELECTRO-CAL**
Industrial Electronics, Inc.
- ELECTROCAM**
Westinghouse Electric Corp.
- ELECTRO-CLUTCH**
I-T-E Circuit Breaker Co.
- ELECTRO CORDER**
Electron Enterprises.
- ELECTROCRRAFT**
Richards Electrocraft, Inc.
- ELECTROFARAD**
Aerovox Corp.
- ELECTROFLO**
Hays Mfg. Co.
- ELECTRO-FLOW**
Super Flow Solder Co., Inc.
- ELECTRO-GLOW**
Industrial Devices, Inc.
- ELECTRO GRAPHIC**
Precise Measurements Co.
- ELECTRO-LARYNX**
Aurex Corp.
- ELECTRO-LINE**
Minneapolis-Honeywell Regulator Co.
- ELECTROLINK**
Lear, Inc.
- ELECTROLYTIC**
Astron Corp.
- ELECTROMANGANESE**
Foote Mineral Co.
- ELECTROMANOMETER**
Sanborn Co.
- ELECTRO-MATIC**
Automatic Signal Div.,
Eastern Industries Inc.
- ELECTROMAX**
Leeds & Northrup Co.
- ELECTROMECC**
International Telephone & Telegraph Corp.
- ELECTRO-MESURFLO**
Hays Mfg. Co.
- ELECTROMITE**
Hays Mfg. Co.
- ELECTRONAMIC**
Precision Apparatus Co., Inc.
- ELECTRONHEAT**
Resdel Engineering Corporation.
- ELECTRONIC EAR**
Sonotone Corp.
- ELECTRONIC ESSENTIALS**
Aerolite Electronics Corp.
- ELECTRONIC FEATHER**
Westinghouse Electric Corp.
- ELECTRONIC LONGHAND**
Tel Autograph Corp.
- ELECTRONIC-MESSENGER**
Air Associates, Inc.
- ELECTRONIC SCORER**
Eagle Pencil Co.
- ELECTRONIK**
Minneapolis-Honeywell Regulator Co.
- ELECTROPATH**
Century Engineers, Inc.
- ELECTROPILOT**
Lear, Inc.
- ELECTROPOINT**
Century Engineers, Inc.
- ELECTRO-PROBE**
Edwood, Inc.
- ELECTROPHOTOMETER**
Fisher Scientific Co.
- ELECTRO-O-PULSE**
Minneapolis-Honeywell Regulator Co.
- ELECTROQUIPT**
Filtors, Inc.
- ELECTROSCOPE**
Feiler Engineering & Mfg. Co.
- ELECTROSIL**
Pacific Moulded Products.
- ELECTRO-SPAN**
Bendix Aviation Corp., Pacific Div.

ELECTRO-STAT
Ansley Mfg. Corp., Arthur

ELECTROTESTER
Feller Engineering & Mfg. Co.

ELECTROTEMP
Westinghouse Electric Corp.

ELECTR-O-VOLT
Minneapolis-Honeywell Regulator Co.

ELECTRO-WIPE
Duotone Co., Inc.

ELECTROWRITER
Pioneer Electric & Research Corp.

ELECTROX
Schauer Mfg. Corp.

ELECTRUNITE
Republic Steel Corp.

ELEKTRAN
Ward Products Div. of
The Gabriel Co.

ELEPHANT
Phosphor Bronze Corp.

ELFURNO
Electric Furnace Co.

EL GATO
Lewis & Kaufman, Ltd.

ELGIN-NEOMATIC
Elgin National Watch Co.

ELIMAG
American Time Products, Inc.

ELINCO
Electric Indicator Co., Inc.

ELINVAR
Allied Products Div., Hamilton
Watch Co.

ELINVAR EXTRA
Allied Products Div.
Hamilton Watch Co.

E-LITE
Eldema Corp.

ELITE
American Elite, Inc., (Telefunken).

ELKOLOY
P. R. Mallory & Co., Inc.

ELKONITE
P. R. Mallory & Co., Inc.

ELKONIUM
P. R. Mallory & Co., Inc.

ELLISCO
Ellis & Sons, Inc., George D.

ELMAC
Multi-Products Co.

EL MENDO
Electro Motive Mfg. Co.

ELMET
North American Phillips Co., Inc.

EL-TEC
Electronic Protection Inc.

ELVANOL
du Pont de Nemours & Co., Inc., E. I.

E-M
Electric Machinery Mfg. Co.

EM-BED-IT
Electronic Plastics Corp.

EMC
Electronic Measurements Corp.

EMC
Howard Industries, Inc.

EMCOR
Elgin Metalformer Corp.

EMDECO
Magnetic Devices Corp.

EMPIRE
Mica Insulator Co.

EMPIRE
Russell, Burdall & Ward
Bolt & Nut Co.

ENAMEL G
General Cable Corp.

ENAMELITE
Acme Wire Co.

ENCAPSOR
Alcor Electronics Corp.

ENCORE
Technical Tape Corp.

ENDON
Voltarc Tubes Inc.

ENDURO
Republic Steel Corp.

ENDURPRENE
General Insulated Wire Works, Inc.

ENDOGAS
Westinghouse Electric Corp.

ENERGIZED
Alpha Metals, Inc.

ENGIN SCOPE
DuMont Laboratories, Inc., Allen B.

ENGRAVOGRAPH
New Hermes Engraving Machine Co.

ENGCO
Engineered Electronics Co.

ENSTRIP
Enthone, Inc.

ENTERITE
General Cable Corp.

ENTHOL
Enthone, Inc.

ENTHOX
Enthone, Inc.

ENVOY
Ansley Mfg. Co., Arthur

EOINITE
Kaiser Aluminum & Chemical Sales, Inc.

E. P.
Electronic Products Co.

EPC
Electronic Parts Mfg. Co., Inc.

EPCO
Etchea Products Corp.

EPCOR
Electronic Products Corp.

EPINATE
American Printed Circuits Co., Inc.

EPINATE A
American Printed Circuits Co., Inc.

EPINATE C-P
American Printed Circuits Co., Inc.

EPINATE G
American Printed Circuits Co., Inc.

EPINATE-T
American Printed Circuits Co., Inc.

EPIC
Electrical & Physical Instrument Corp.

EPIPHEN
Borden Co., The, Chemical Div.

EPM
Electronics Parts Mfg. Co., Inc.

EPOGLAS
Plastilight, Inc.

EPON
Shell Chemical Corp.

EPUT
Berkeley Division,
Beckman Instruments, Inc.

EQUALINE
Entron Inc.

EQUALOAD
Keystone Carbon Co., Inc.

EQUAMETER
Gerber Scientific Instrument Co.

EQUATROL
Entron, Inc.

EQUIBAR
Trans-Sonics, Inc.

ERECTOHHM
Workman TV, Inc.

ERSIN MULTICORE
Multicore Solders Ltd.

ERX
Hupp Electronics Co., A
Div. of Hupp Corp.

ESCO
Electric Specialty Co.

ESCO
Electro Switch Corp.

ESCON
Electro-Switch & Controls Inc.

ESICO
Electric Soldering Iron Co.

ESICO-LUGER
Electric Soldering Iron Co.

ESNA
Elastic Stop Nut Corp.

ESNAIS
Elastic Stop Nut Corp.

ESSAR
Untronics, Inc.

ESTAR
Sprague Electric Co.

ET
Astron Corp.

ETCO
Electronic Transformer Co., Inc.

ETERNALLOY
Electro-Lab Processes, Inc.

ETHOCEL
Dow Chemical Co.

ETHYLON
Amphenol Electronics Corp.

ETHOLOC
Weckesser Co.

ETS-7
Industrial Electronic Engineers

EUREKA
Morse Co., Frank W.

EVABRITE
Bache & Co., Semon

EVALAST
Bache & Co., Semon

EVANOHM
Driver Co., Wilbur B.

EVAPOROGRAPH
Baird-Atomic, Inc.

EVELYN
Rubicon Co.

EVEN-BREAK
Electric Eye Equipment Co.

EVENGLO
Koppers Co., Inc.

EVERDUR
American Brass Co.

EVEREADY
National Carbon Co., Div. of
Union Carbide & Carbon Corp.

EVERFAST
Ambroid Co.

EVERLASTING
Harper Co., The, H. M.

EVERLOCK
Thompson-Bremer Co.

EVER-LOK
Russell & Stoll Co., Inc.

EVERON
Voltarc Tubes Inc.

EXACTOHHM
Workman TV, Inc.

EXACT PHOTOCOPY
General Photo Products Co.

EXCELLALL
Frederick Post Co.

EXECUTIVE ADF
Lear, Inc.

EXIDE
Electric Storage Battery Co.

EXIDE-IRONCLAD
Electric Storage Battery Co.

EXIDE-MANCHEX
Electric Storage Battery Co.

EXPAMET
British Industries Corp.

EXPRESS
Centralab Div. of Globe-Union, Inc.

EYE WITNESS
Radio Corporation of America

E-Z
Ideal Industries, Inc.

E-Z
Pyramid Products Co.

E-Z-CODE
Westline Products Div. of
Western Lithograph Co.

E-Z CUE
Amplifier Corp. of America

E-ZEE-ON
Indiana Steel Products Co.

EZSOL
Hudson Wire Co.

FC
Electro-Mechanical Div. of
General Riveters, Inc.

F-C-I
Film Capacitors, Inc.

FM
Electro-Mechanical Div. of
General Riveters, Inc.

FABRILITE
du Pont de Nemours & Co., Inc., E. I.

FACTROL
Maico Co., Inc.

FAI
Summers Gyroscope Co.

FAIRPRENE
du Pont de Nemours & Co., Inc., E. I.

FARADON
Cornell-Dubilier Electric Corp.

FARATRON
Lumenite Electric Co.

FARLITE
Farley & Loetscher Mfg. Co.

FARLOEX
Farley & Loetscher Mfg. Co.

FASALOY
Fansteel Metallurgical Corp.

FASTATCH
Centralab Div. of Globe-Union, Inc.

FASTACK
Paisley Products, Inc.

FASTEE
Entron, Inc.

FASTELL
Fansteel Metallurgical Corp.

FASTEERING
Central Screw Co.

FASTICK
Paisley Products, Inc.

FASTOP
Lear, Inc.

FAST'S
Koppers Co., Inc.

FATHOMETER
Raytheon Mfg. Co.

FAX-FILM
Brush Electronics Co.

FAXIMILE
Hogan Laboratories, Inc.

FAXPAPER
Hogan Laboratories, Inc.

FEATHERIDE
Webster Electric Co.

FEATHERLITE
Brush Electronics Co.

FEATHERWEIGHT
Clifford Mfg. Co.

FEATHERWEIGHT
Goldak Co., Inc., The

FEDCO
Federal Engineering Co.

FEDERAL RECORDER
Conn. Ltd., C. G.

FEEDRATOR
Fischer & Porter & Co.

FELCO
Forest Electric Co.

FELCOID
Felt Products Mfg. Co.

FEL-PAK
Felt Products Mfg. Co.

FEL-PRO
Felt Products Mfg. Co.

FENOX
Bakelite Corp.

FERNETIC
Perfection Mica Co.

FERRAC
Aipax Products Co.

FERRACTOR
Remington Rand Univac Div. of Sperry
Rand Corp.

FERRAMIC
General Ceramics Corp.

FERRI-CHOKE
Superelex Electronics Corp.

FERRICORE
National Moldite Co.

FERRI-LOOPSTICK
Superelex Electronics Corp.

FERRIMAG
Crucible Steel Co. of America.

FERRISTOR
Berkeley Division, Beckman Instruments,
Inc.

FERRO-CELL
Topatron, Inc.

FERROD
Tuttle & Kift.

FERRO-DYNAMIC
Lear, Inc.

FERRO-SHEEN
Orradio Industries, Inc.

FERROTRON
Polymer Corp., The.

FERROVAC-E
Vacuum Metals Corp.

FEUTRON
American Felt Co.

FIBROID
Johns-Manville.

FIBERGLAS
Owen-Corning Fiberglass Corp.

FIBERLOY
British Electronics Sales Co., Inc.

FIBRACOUSTIC
Johns-Manville.

FIBRETONE
Johns-Manville.

FIDELITONE
Permo, Inc.

FIELD-FONE
Industrial Radio Corp.

FIL-CAP
Filtron Co., Inc.

FILMAGNETIC
Berndt-Bach, Inc., Auricon Div.

FILMETER
American Instrument Co., Inc.

FILMGGRAPH
Miles Reproducer Co., Inc.

FILMITE
Sprague Electric Co.

FILMPOT
Fairchild Controls Corp.

FILM-X
Good-All Electric Mfg. Co.

FILPEC
Centralab Div. of Globe-Union, Inc.

FILPLATE
Centralab Div. of Globe-Union, Inc.

FILTACOL
Magnetic Core Corp.

FILT-A-COR
Magnetic Core Corp.

FILTERETTE
Tobe Deutschmann Corp.

FILTERIZE D
Tobe Deutschmann Corp.

FILTERMITE
Tobe Deutschmann Corp.

FILTERNOVS
Continental Carbon, Inc.

FILTEROL
Sprague Electric Co.

FILTER POINT
Duotone Co., Inc.

FILTERS L
Sprague Electric Co.

FILTERVOLT
Insuline Corp. of America.

FILTOR PAK
Torocoil Co.

FINCO
Finney Co.

FINDOR
Fidelity Instrument Corp.

FINNFLEX
Finn & Co., Inc., T. R.

FIREBALL
JFD Mfg. Co., Inc.

FIRE BELLE
Minneapolis-Honeywell Regulator Co.

FIRE DEVIL
Littelfuse, Inc.

FIRETRON
Electronics Corporation of America.

FIREYE
Electronics Corp. of America.

FIREWALL
Rockbestos Products Corp.

FIREZONE
Rockbestos Products Corp.

FISCHERQUARTZ
Fischer & Co., R. A.

FISCHERSINE
Fischer & Co., R. A.

FISCHER THERM
Fischer & Co., R. A.

FISHBONE
Telrex Inc.

FISHERFONE
Fisher Research Lab.

5-WAY
Superior Electric Co., The

FIXTOHM
Clarostat Mfg. Co., Inc.

FLAME-O-TROL
Barber-Colman Co.

FLASH
Phillips Mfg. Co., Inc.

FLATAK
Paisley Products Inc.

FLATOHM
Centralab Div. of Globe-Union, Inc.

FLATWRAP
Paisley Products Inc.

FLAWMASTER
Biggs Co., Carl H.

FLEETCOM
Communications Co., Inc.

FLEET CONTROL
Hammarlund Mfg. Co.

FLEETWAY
Connecticut Telephone & Electric Corp.

FLEETWOOD
Conrac, Inc.

FLEK-PAK
Bogen Co., Inc., David.

FLEXAGUIDE
Airtrol Inc.

FLEXALL
Rome Cable Corp.

FLEX-A-POWER
Trumbull Dept. of General Electric Co.

FLEXARC
Westinghouse Electric Corp.

FLEXFLAT
Paisley Products Inc.

FLEXIFONE
Dukane Corp.

FLEXIFORM
Precision Paper Tube Co.

FLEXIMOUNT
Insuline Corp. of America.

FLEXISPLICES
Frankel Connector Co.

FLEXITE
Markel & Sons, L. Frank.

FLEXITIP
Weller Mfg. Co.

FLEXI-TROL
Wilson & Co., G. C.

FLEXLAB
Standard Electric Time Co.

FLEXLIFE
Columbia Wire & Supply Co.

FLEXLOC
Standard Pressed Steel Co.

FLEXO
Copperweld Steel Co.

FLEXO-FLUTE
Arro Expansion Bolt Co.

FLEXOHM
Clarostat Mfg. Co., Inc.

FLEXO-MOLD
Plastronics

FLEXON
Flexonics Corp.

FLEXOPULSE
Eagle Signal Corp.

FLEXO WAX C
Glyco Products Co., Inc.

FLEX-SOK
Stupakoff Ceramic & Mfg. Co.,
Div. of The Carborundum Co.

FLEXTACK
Paisley Products Co.

FLIGHTCOM
Communications Co., Inc.

FLIGHTWEIGHT
Bendix Aviation Corp.

FLIMOSEAL
Telegraph Condenser Co., Ltd.

FLIPON
Westinghouse Electric Corp.

FLITE-LOK
Boots Aircraft Nut Corp.

FLOCRON
Magnuson Engineers, Inc.

FLO-FORM
Harper Co., H. M.

FLOGUIDE
Fischer & Porter Co.

FLOOD-FLASH
Photobell Company.

FLORI-TRAN
Merit Coil & Transformer Corp.

FLOSOL
American Chemical Paint Co.

FLOWMETER
Hastings Instrument Co.

FLOWRATOR
Fischer & Porter Co.

FLUORADEX
Westinghouse Electric Corp.

FLUORETOR
Menlo Research Laboratory.

FLUORFILM
Dietrich Corp.

FLUOROFLEX
Resistoflex Corp.

FLUOROFLEX-C
Resistoflex Corp.

FLUOROFLEX-T
Resistoflex Corp.

FLUOROSPOT
Westinghouse Electric Corp.

FLOUROVUE
Westinghouse Electric Corp.

FLUSH-LITE
Littelfuse, Inc.

FLUSHLITE
Drake Mfg. Co.

FLUTED ELECTRODE
P. R. Mallory & Co., Inc.

FLUXCOTE
London Chemical Co.

FLUX GATE
Eclipse-Pioneer Div.
Bendix Aviation Corp.

FLUX-'N-SOLDER
Johnson Mfg. Co., Inc.

FLUXOL
Standard Metals Corp.

FLUXRITE
National Lead Co.

FLUX-STIK
Lake Chemical Co.

FLUXVALVE
Pickering & Co.

FLYING ARROW
Ward Products Corp., Div. of
The Gabriel Co.

FLYING TYPEWRITER
Potter Instrument Co., Inc.

FLYWEIGHT MAGNEMITE
Amplifier Corp. of America

F-M-E
Federal Mfg. & Engineering Corp.

FM-G
General Controls Co.

F.N.A.
Paisley Products, Inc.

FOAM LINE
Plastoid Corp.

FOAMTUBE
Plastoid Corp.

FOCALIZER
Quam Nichols Co.

FONOGRAFS
Webcor, Inc.

FOOTROL
General Control Co.

FORASITE
Reichhold Chemicals, Inc.

FORDMICA
Ford Radio & Mica Corp.

FORMBOND
Acme Wire Co.

FORMEX
General Electric Co.

FORMEZE
General Cable Corp.

FORM FLEX
Aircraft Transformer Corp.

FORMLON
General Cable Corp.

FORMVAR
General Cable Corp.

FORMVAR
Acme Wire Co.

FORMVAR
Pheps Dodge Copper Products Co.

FORTICEL
Celanese Corp. of America, Plastics Div.

FORTIFLEX
Celanese Corp. of America, Plastics Div.

FORTISAN
Celanese Corp. of America.

FORTISSIMO
Permotex Corp.

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#479
Cohn Corp., Sigmund.

"49" ALLOY
Magnetic Metals Co.

49-1
Triplett & Barton, Inc.

FOSTERITE
Westinghouse Electric Corp.

FOTOELECTRIC
Worner Electronic Devices.

FOTOLINE
California Bent Glass Co.

FOTOLUX
American Speedlight Corp.

FOTO SOLAR
National Fabricated Products
Div. of Hoffman Electronics Corp.

F.P.
Mallory & Co., Inc., P. R.

FRAHM
Biddle Co., James C.

FRANKLIN ELECTRONICS
Precision Electronics, Inc.

FREAS
Precision Scientific Co.

FREE-CUT INVAR "36"
Carpenter Steel Co.

FREED-EISEMAN
Fairchild Controls Corp.

FREE-VANE
Bristol Co., The

FREON
du Pont de Nemours & Co., Inc., E. I.

FREQUEMATIC
Federal Telephone & Radio Corp.

FRETARAY
Fretco, Inc.

FRETLINE
Fretco, Inc.

FRIGISTAT
Minneapolis-Honeywell Regulator Co.

FRINGELEADER
Radio Merchandise Sales, Inc.

FRINGEMASTER
Radio Merchandise Sales, Inc.

FROEHLER
Associated American Trading Division.

FROST
Chicago Telephone Supply Corp.

FRY'S
Electrovert Inc.

FURNATRON
Westinghouse Electric Corp.

FUSE-BAR
Workman TV, Inc.

FUSELITE
Alden Products Co.

FUSES
Jefferson Electric Co.

FUSETRON
Bussmann Mfg. Co.

FUSIONWELD
Avon Tube Div.,
Higbie Mfg. Co.

FUSISTOR
Bradford Components, Inc.

FUSTATS
Bussmann Mfg. Co.

FUTUREMIC
Channel Master Co.

FUZOHM
Clarostat Mfg. Co., Inc.

FXR
F-R Machine Works, Inc.

FYBEROID
Wilmington Fibre Specialty Co.

FYBRGLASS
Rush Wire Stripper Div.,
Eraser Co., Inc., The

GA & F CARBONYL
Antara Chemicals Div., General Aniline
& Film Corp.

GB
Goldsmith Bros. Smelting & Refining Co.

G-B JET
Workman TV, Inc.

G-C
General Cement Mfg. Co.

G METER
Boonton Radio Corp.

GAINSET
Kay Electric Co.

GALVO PROTECTOR
Audio Instrument Co., Inc.

GANGPOT
Giannini & Co., Inc., G. M.

GAP/R
Philbrick Researches, Inc., George A.

GARCEAU
Electro-Medical Lab., Inc.

GARDINER
Federated Metals Div., American
Smelting & Refining Co.

GARDTROL
Shand & Jurs Co., Sub. of General Pre-
cision Equipment Corp.

GARRARD
British Industries Corp.

GASEAL
General Hermetic Sealing Corp.

GASK-O-SEAL
Wolfe Co., Inc., Franklin C.
Div. of the Parker Appliance Co.

GEARMOTOR
Motoresearch Co.

GEDA
Goodyear Aircraft Corp.

GEM
Jefferson Electric Co.

GEM
Mallory & Co., Inc., P. R.

GEMTENNA
Tennalab.

GENALEX
British Industries Corp.

GENCALLOY A
General Cable Corp.

GENCASEAL
General Cable Corp.

GENCAST
General Plastics Corp.

GENCATHENE
General Cable Corp.

GENCATROL
General Cable Corp.

GENCO EXACT FAX
General Photo Products Co., Inc.

GENCORONE
General Cable Corp.

GENCOTE
General Plastics Corp.

GENEMOTOR
Carter Motor Co.

GENERAL
Mallory Battery Co.

GENERAL SCIENTIFIC
San Fernando Electric Mfg. Co.

GENESCOPE
Simpson Electric Co. Div. of
American Gage & Machine Co.

GENETRON
Baker & Adamson Products, General
Chemical Div. of Allied Chemical & Dye
Corp.

GENEVALOC
Bendix Aviation Corp., Pacific Div.

GEN-RAL
Muter Co.

GENTON
General Plastics Corp.

GEOCABLE
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GEOFORMER
Triad Transformer Corp.

GEOMETER
Georator Corp.

GEOMATIC
Finney Co., The.

GEON
Goodrich Chemical Co., B. F.

GEORFEL
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GEORGIAN
Electro-Voice, Inc.

GEOTRODE
Georator Corp.

GEOVOLTMETER
Georator Corp.

GER-FLEX
Gering Products, Inc.

GER-HIDE
Gering Products, Inc.

GER-MAT
Gering Products, Inc.

GERON
Gering Products, Inc.

GER-PAK
Gering Products, Inc.

GER-TUBE
Gering Products, Inc.

GEVIDUTY FLOWRATOR
Fischer & Porter Co.

G-H
Girard-Hopkins

GI
General Industries Co.

GIANT SIX
Burgess Battery Co.

GIBSILOY
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G-L
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GLASBES
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of Sun Chemical Corp.

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GLASSEAL
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GLASSFLOSS
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GLASSMIKE
Condenser Products Co.

GLASS SEALING "42"
Carpenter Steel Co.

GLASWELD
U. S. Plywood Corp.

GLASWITCH
Revere Corp. of America
Sub. of Neptune Meter Co.

GLENNITE
Gulton Industries, Inc.

GLIDER
Shure Brothers

G-LINE
Bogen Co., Inc., David.

GLOBAL
Molded Insulation Co.

GLOBAR
Carborundum Co.

GLOBE TROTTER
Radio Corporation of America.

GLO-DROP
Workman TV, Inc.

GLO-N-GLO
Canadian Radium & Uranium Corp.

GLOTECH
Fischer & Porter Co.

GLYCOWAX
Glyco Products Co., Inc.

GLYDAG
Acheson Colloids Co.

GLYPTAL
General Electric Co.

GM
Detroit Diesel Engine Div. of General
Motors Corp.

GOETZE
Johns-Manville.

GOLD BRAND
Sylvania Electric Products Inc.

GOLD CUP
Carboneau Industries, Inc.

GOLD SHIELD
J F D Mfg. Co., Inc.

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Motorola, Inc.

GOLDEN THROAT
Radio Corporation of America.

GOLDEN VIEW
Motorola, Inc.

GOLDEN VOICE
Motorola, Inc.

GOLDEN WAND
Peerless Products Industries

GOODLINE
Wire Co. of America, Inc.

GOOD-RITE
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GOTHARD
Johnson Co., E. F.

GOTHAM ELECTRIC GLASSLINE
Hartford City Paper Co.

GP
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GRC
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GRACOIL
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Corp.

GRADIENT
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GRAFOLUBE
Grafo Colloids Corp.

GRAFOLUX
Grafo Colloids Corp.

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- GRALLEN**
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Gotham Audio Development Corp.
- GRANDODINE**
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Gerber Scientific Instrument Co.
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- GRAVIGAGE**
Ess Specialty Co.
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- GRAVOLUBE**
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- GUDE-NYLACE**
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- GYROTRON**
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- HANDI-GLOW**
Industrial Devices Inc.
- HANDIE TALKIE**
Motorola Communications &
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Handy & Harman
- HANDYPACK**
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- HARVEL**
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- HARVEY**
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- HARWOOD**
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- HASCROME**
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- HEDIN**
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- HETRON**
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- HI-VO-KAPS**
Centralab Div. of Globe-Union, Inc.
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- HOLLYTRAN**
Transformer Engineers.
- HOLLYWOOD VIBRA-TONE**
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- HOLTITE**
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- HOLTZER-CABOT**
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- HOME HEALTH**
Waters Conley Co.
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- HOMOFLEX**
Raybestos-Manhattan, Inc.
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- HORNAC**
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- HORNET**
New York Transformer Co., Inc.
- HORSEHILL**
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- HORTON**
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- HOTSPOT**
Mitchell Industries, Inc.
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- HOUSE OF RESISTORS**
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- HOWALLOY**
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- HOZ**
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- HP**
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- H-Q**
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- HUBBELCK**
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- HUCKBOLT**
Huck Mfg. Co.
- HUDCO**
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- MUDSON**
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- HUMDINGER**
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- HUMIDIGRAPH**
Bristol Co., The
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- HUMIDISTAT**
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- HUMIDOLAIN**
Star Porcelain Co.
- HUMIDUSTAT**
Minneapolis-Honeywell Regulator Co.
- HUMISTAT**
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- HUMPHREY**
Pacific Scientific Co.
- HURLETRON**
Electric Eye Equipment Co.
- HUSHATONE**
Brush Electronics Co.
- HUSKY**
Price Electric Corp.
- HY-A-SIL**
Sanford Miller Co.
- HYCAR**
Goodrich Chemical Co., B. F.
- HYCONVERTER**
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- HYDENT**
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- HYDEX**
Jensen Mfg. Co.
- HYDI**
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- HYDROGRAF**
Grafo Colloids Corp.
- HYDRON**
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- HYDROPHEN**
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- HYDROSEC**
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- HYDROSPERSE**
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- HYDTROL**
Cook Electric Co.

HYFLEX
Irvington Varnish & Insulator Div. of
Minnesota Mining & Mfg. Co.

HYFLUX ALNICO
Indiana Steel Products Company.

HYGE
Consolidated Electrodynamics Corp.

HYGRADE
Foote Brothers Gear & Machine Corp.

HYGRADE
Mitchell-Rand Insulation Co., Inc.

HYGRADE
Markel & Sons, L. Frank.

HYGRODIAL
Friez Instrument Div.,
Bendix Aviation Corp.

HYGROPAK
Photo Crystals Inc.

HYHERVAC
Central Scientific Co.

HYLINK
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HY LOW
Stevens Products Inc.

HYLUG
Burndy Corp.

HY-MET
Astron Corp.

HYMU
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HYPASS
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HYPERCORE
Moloney Electric Co.

HYPERFIL
Westinghouse Electric Corp.

HYPERSONIC
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HYPERVAC
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HYPEX
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HYRAD
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HYREL
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HYRING
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HYSL
Houghton Laboratories, Inc.

HYSAPAR
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HYSTERSET
Ward Leonard Electric Co.

HYTAB
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HYTEMCO
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HY-THERM
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HYTOOL
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HYVAC
Central Scientific Co.

HYVOL
Aerovox Corp.

IATRON
Farnsworth Electronics Co. Div. of
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ICA
Insuline Corp. of America.

ICE-STIK
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ICONIC
Altec Lansing Corp.

I. D. C.
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IDEALFONE
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IDENTASLEEVE
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I.E.R.C.
International Electronic Research Corp.

IHC
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IHT
Illinois Condenser Co.

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ILLINI-HYCAP
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ILLUSTRAVOX
Electro Engineering & Mfg. Co.

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I M C
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IMC
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IMCO
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IMCOR
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Western Gold & Platinum Co.

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INDITRON
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X-Ray Dept. of General Electric Co.

INDUCTUNER
Mallory & Co., Inc., P. R.

INDUR
Reilly Tar & Chemical Corp.

INDUSTRIAL
Technic Inc.

INDUSTRIAL TELECEIVERS
Industrial Television, Inc.

INDUSTRO
Haloid Co., The

INDUSTRO
Star Stainless Screw Co.

IND-X-MATIC
Brush Electronics Co.

INERTAIRE
Westinghouse Electric Corp.

INERTEEN
Westinghouse Electric Corp.

INFERNOCOTE
Wirt Co.

IN-LINE
JFD Mfg. Co., Inc.

INMANCO
Insulation Manufacturers Corp.

INMCO
Instrument Motors.

IN-RES-CO
Instrument Resistors Co.

INSA-LUTE
Sauerelsens Cements Co.

INSANOL
Westinghouse Electric Corp.

INSL
Insl-X-Co., Inc.

INSPECTOGAGE
Alcar Instruments, Inc.

INSPECTOLITE
Hanovia Chemical & Mfg. Co.

INSTAGRAPH
Bristol Co., The

INSTAN-FORM
Tel Autograph Corp.

INSTANSOLDER
Cole Radio Works.

INSTOMATIC
Sanborn Co.

INSULAZED
Magnetic Metals Co.

INSULCON
Stupakoff Ceramic & Mfg. Co., Div. of
The Carborundum Co.

INSULKOTE
Johns-Manville.

INSULUGS
Burndy Engineering Co., Inc.

INSUROK
Richardson Co., The

INTEC
Intercontinental Electronics Corp.

INTELIN
Federal Telephone & Radio Co.

INTERCEPTOR
Wells & Winegard

INTERCHEMICAL
Precision Scientific Co.

INTERLINK
Federal Telephone & Radio Co.

INTERLOCK
Harvey Hubbell, Inc.,

INTERNATIONAL
Colortone Electronics, Inc.

INTERVERTER
Interelectronics Corp.

INTRAFAX
Western Union Telegraph Co.

INTREX
Interelectronics Corp.

INTRUDALARM
Harvey-Wells Electronics, Inc.

INVAR
Telegraph Construction & Maintenance
Co., Ltd.

INVAR "36"
Carpenter Steel Co.

INVERTRON
Behlman Engineering Co.

IONAC
Permutit Co.

IONIC
Scientific Electric Corp.

IONOTRON
U. S. Radium Corp.

IPI ISOFOAM
Iscoyante Products, Inc.

IRC
International Resistance Co.

IRD/HICKS
The Hicks Corp.

IRESCO RELAY SYSTEM
International Research Associates.

IRIS
American Scientific Co.

IRISH
Orradio Industries, Inc.

IRN
Williams & Co., C. K.

IROQUOIS
Sangamo Electric Co.

IRADIOMETERS
Sensitive Research Instrument Co.

IRY-O-LITE
Irvington Varnish & Insulator Div. of
Minnesota Wiring & Mfg. Co.

IRV-O-VOLT
Irvington Varnish & Insulator Co. Div.
of Minnesota Mining & Mfg. Co.

I/S
Intersearch, Inc.

ISATRON
Consolidated Electrodynamics Corp.

ISO
Insolantite Manufacturing Corp.

ISOBESTOS
Natvar Corp.

ISOELASTIC
Chatillon & Sons, John.

ISOGLAS
Natvar Corp.

ISO-KAPS
Central Div. of Globe-Union, Inc.

ISOMICA
Mica Insulator Co.

ISOMODE
M B Mfg. Div. of Textron American,
Inc.

ISONEL
Acme Wire Co.

ISOPHASE
Pickering & Company

ISOPHON
Arnhold Ceramics, Inc.

ISOPLANE
Motorola Communications & Electronics,
Inc.

ISOPLY
Elcor, Inc.

ISO-Q
Insolantite Mfg. Corp.

ISO-Q
Motorola, Inc.

ISO-SEAL
Chatillon & Sons, John.

ISOTRAN
Sorensen & Co., Inc.

IT
Illinois Condenser Co.

ITC
Technology Instrument Corp.

ITECO
Industrial Test Equipment Co.

ITELITE
I-T-E Circuit Breaker Co.

IVIFLEX
Irvington Varnish & Insulator Div. of
Minnesota Mining & Mfg. Co.

IVITHENE
Irvington Varnish & Insulator
Div. of Minnesota Mining & Mfg. Co.

IXL
Collyer Insulated Wire Co.

J-CAP
Jeffers Electronics Div. of
Speer Carbon Co.

"J-E"
Jacks-Evans Mfg. Co.

J P CAPACITOR
Jeffers Electronics Div. of
Speer Carbon Co.

J TRANS
Automatic Mfg. Div. of General In-
strument Corp.

JACKKNIFE
Radio Merchandise Sales

JACKSON
Vulcan Electric Co.

JACO
Jarrell-Ash Co.

JAGABI
Biddle Co., James G.

JAINCO
Jacobs Instrument Co.

JAINCOMP
Jacobs Instrument Co.

JAY-BEE-TEE
J-B-T Instruments, Inc.

JERKIT
Littelfuse Inc.

JETCAL
Howell Instrument Co.

JETENNA
JFD Mfg. Co., Inc.

JETFLEX
Cook Electric Co.

JET FLUX
All-State Welding Alloys Co., Inc.

JET-HELIX
JFD Mfg. Co., Inc.

JETIE
JFD Mfg. Co., Inc.

JET-LOK
Boots Aircraft Nut Corp.

JETOMIC
JFD Mfg. Co., Inc.

JET-PLATER
Sel-Rex Corp., Rectifier Div.

JET PROBE
Workman TV, Inc.

JETUBE
Tuttle & Kift

JIFFY-TITE
Millen Mfg. Co.

JK
Knights Co., James.

J-M
Johns-Manville.

J. M.
Paisley Products, Inc.

JOHNCRANE
Crane Packing Co.

JOLTA
Jan Hardware Mfg. Co., Inc.

JOLITE
Lerner Plastics, Inc.

JOMANCO
Johns-Manville.

J.S.C.
Jersey Specialty Co., Inc.

JUMBO
JFD Mfg. Co., Inc.

JUMBO
Sierra Electric Corp.

JUNIOR FLOWRATOR
Fischer & Porter Co.

J-W
Johnson-Williams, Ltd.

JUPITER GUM
Paisley Products, Inc.

J-W SNIFFER
Johnson-Williams, Ltd.

K 42 B
Westinghouse Electric Corp.

"K" MONEL
International Nickel Co., Inc., The

"KR" MONEL
International Nickel Co., Inc., The

KAHL
Chemalloy Electronics Corp.

KALOTRON
Thermosen, Inc.

KALWOOD
Keller Products Co.

KANIGEN
General American Transportation Corp.

KANTARK
Trico Fuse Mfg. Co.

KANTLINK
Positive Lock Washer Co.

KANT-LINK
American Nut & Bolt Fastener Co.

- KANTLINK**
Eaton Mfg. Co.
- KAPPA**
Wrights & Sons Co., William E.
- KARADIO**
Eckstein Radio & Television Co.
- KARAK**
Ohio Carbon Co.
- KARBOMET**
Driver-Harris Co.
- KARMA**
Driver-Harris Co.
- KARROPAK**
Felt Products Mfg. Co.
- KASIL**
Philadelphia Quartz Co.
- KATOLIGHT**
Kato Engineering Co.
- KAYGREY**
Rogers Corp.
- KAYPAR**
Rogers Corp.
- KAYROK**
Rogers Corp.
- KEI**
Kurman Electric Co., Inc.
- KEL-F**
Kellogg Co., M. W.
- KELLERFLEX**
Pratt & Whitney Div.,
Niles-Bennett-Pond Co.
- KELLER POLYGRAPH**
Associated Research, Inc.
- KELON**
Shamban & Co., W. S.
- KELOX**
Fasteners, Inc.
- KEMET**
Union Carbide & Carbon Co.
- KEMFUZE**
Bel Fuse, Inc.
- KEMGO**
Markem Machine Co.
- KEMISTOR**
Bel Fuse, Inc.
- KENCO**
Kenwood Engineering Co., Inc.
- KENEX**
Westinghouse Electric Corp.
- KENITE**
Keystone Electronics Corp.
- KEN-RAD**
General Electric Co.
- KEPRO**
Kell Engineering Products.
- KEPS**
Eaton Mfg. Co., Reliance Div.
- KEPS**
Shakeproof Div., Illinois Tool Works.
- KERATYM**
Horn Co., Inc., A. C.
- KETAY**
Norden-Ketay Corp.
- KETOS**
Crucible Steel Co. of America
- KEYBOARD**
Weinschel Engineering Co.
- KEYDSWEEP**
Kay Electric Co.
- KEYUNCIATOR**
Power Equipment Co.
- KEYSTONE**
Penn Keystone Corp.
- KTC**
Union Carbide & Carbon Corp.
- K-H**
Krohn-Hite Instrument Co.
- KILO-Q**
Kay Electric Co.
- KILO-SWEEP**
Kay Electric Co.
- KILOTRON**
Cook Electric Co.
- KILOVOLT**
Caddell-Burns Mfg. Co.
- KIN-EX**
Vidaire Electronics Mfg. Co.
- KINE-LITE**
Vidaire Electronics Mfg. Co.
- KINEPLEX**
Collins Radio Co.
- KINE-TEST**
Vidaire Electronics Mfg. Co.
- KINEVOX-HALLEN**
Electromation Co.
- KING MARKWELL**
Markem Machine Co.
- KIRKSITE**
National Lead Co.
- KLAMP-TITE**
I-T-E Circuit Breaker Co.
- KLEEN'R**
Conrac, Inc.
- KLEEN-SWEEP**
Duotone Co., Inc.
- KLEER-IT**
Superex Electronics Corp.
- KLEERKOTE**
Crown Industrial Products.
- KLEER-PAK**
Sprague Electric Co.
- KLEIN-KOAT**
Klein & Sons, Mathias
- KLIPOK**
Trico Fuse Mfg. Co.
- KLIPTITE**
Kulka Electric Mfg. Co., Inc.
- KLIPXIT**
Vaco Products Co.
- KLIPZON**
United Technical Laboratories.
- KLIXON**
Spencer Thermostat Div.,
Metals & Controls Corp.
- K-LOC**
Erie Resistor Corp.
- KLOZURE**
Garlock Packing Co., The.
- KLYDONOGRAPH**
Westinghouse Electric Corp.
- KME**
Kaiser Manufacturing Engineers, Inc.
- KNEADED**
Eberhard Faber Pencil Co.
- KNIGHT**
Allied Radio Corp.
- KNOCKOMETER**
Sperry Gyroscope Co.,
Div. of The Sperry Corp.
- KNOLINK**
Eaton Mfg. Co., Reliance Div.
- KODAGRAPH**
Eastman Kodak Co.
- KODAK**
Eastman Kodak Co.
- KODAPAK**
Eastman Kodak Co.
- KODIFIER**
Markwik Manufacturing Co., Inc.
- KOHINOOR**
Waldes Kohinor, Inc.
- KOLD-PAK**
Tenney Engineering, Inc.
- KOLORISK**
Centralab Div., Globe Union, Inc.
- KONAL**
Westinghouse Electric Corp.
- KON-NEG-TOR**
General Electric Co.
- KOOL KLAMPS**
Birther Corp.
- KOOLOHM**
Sprague Electric Co.
- KOOL-SEL**
Pyramid Electric Co.
- KOROSEAL**
Goodrich Industrial Products Co., B. F.
A Div. of The B. F. Goodrich Co.
- KOTAK**
Amperite Co., Inc.
- KOTOL**
U. S. Rubber Co.
- KOVARALLOY**
Stupakoff Ceramic & Mfg. Co.
Div. of The Carborundum Co.
- KOVAR**
Westinghouse Electric Corp.
- KOVER-ZIP**
Waldes Kohinor, Inc.
- KRECO**
Kreckman Co., Herb.
- KWENE**
Bakelite Co., A Div. of Union
Carbide & Carbon Corp.
- KRISTON**
Goodrich Chemical Co., B. F.
- KROME KOAT**
General Cement Mfg. Co.
- KRONOLUME**
Electronic Assembly Co., Inc.
- KRYSTAL KOAT**
General Cement Mfg. Co.
- K-TRAN**
Automatic Mfg. Div. of General In-
strument Corp.
- KUPEC**
Centralab Div., Globe Union, Inc.
- KULGRID**
Sylvania Electric Products, Inc.
- KUM-KLEEN**
Avery Adhesive Label Corp.
- KURMELEC**
Kurman Electric Co., Inc.
- K-V-O**
Sprague Electric Co.
- K-VOLT STANDARD**
Avlen, Inc.
- K/W**
Kaiser Aluminum & Chemical Sales, Inc.
- KWIK**
Dunton Co., M. W.
- KWIKFLUX**
Special Chemicals Co.
- KWIKITS**
University Loudspeakers, Inc.
- KWIK-KALL**
Loge Sound Engineers, J. M.
- KWIK-TEST**
Sprague Electric Co.
- KYLON**
Mystik Adhesive Products Co.
- "L" NICKEL**
International Nickel Co., Inc.
- LB**
Design Tool Corp.
- LB**
Louis Bros.
- L-2 AUTOPILOT**
Lear, Inc.
- LAB-BILT**
Specialty Battery Co.
- LABCASE**
Berkshire Laboratories
- LABCHECK**
Berkshire Laboratories
- LAB-CREST**
Fischer & Porter Co.
- LAB-LINE**
Dunlap Electronics.
- LABMARKER**
Berkshire Laboratories
- LABMASTER**
General Nuclear Corp.
- LABOHM**
Berkshire Laboratories
- LABPEAK**
Berkshire Laboratories
- LABRECT**
Berkshire Laboratories
- LABSTROBE**
Berkshire Laboratories
- LABTEST**
Berkshire Laboratories
- LABSTRANS**
Berkshire Laboratories
- LABVAR**
Berkshire Laboratories
- LABVOLT**
Berkshire Laboratories
- LABVOLT**
Electrodyn Co.
- LACKON**
U. S. Radium Corp.
- LA-CO FLUXES**
Lake Chemical Co.
- LACQUER-STIK**
Lake Chemical Co.
- LADDER LINE**
Illumitronic Engineering.
- LAMCO**
La Magna Mfg. Co., Inc.
- LAMICOID**
Mica Insulator Co.
- LAMICOID**
Insulating Fabricators, Inc.
- LAMICORES**
Magnetic Metals Co.
- LAMINAC**
American Cyanamid Co.
- LAMIPACKS**
Magnetic Metals Co.
- LAMITEX**
Franklin Fibre-Lamitex Corp.
- LAPMASTER**
Crane Packing Co.
- LAQUA**
Fidelity Chemical Products Corp.
- LARGO**
Permoflux Corp.
- LATTICE BRAID**
Garlock Packing Co., The.
- LAUBSCHER**
American Laubscher Corp.
- LAURETT**
Laurehk Radio Mfg. Co.
- LAUXEN**
Monsanto Chemical Co.
- LAUXITE**
Monsanto Chemical Co.
- LAVA**
Kirchberger & Co., Inc., M.
- LAVA**
Maryland Lava Co.
- LAVITE**
Steward Mfg. Co., D. M.
- LAVOLAIN**
Star Porcelain Co.
- LAYTEX**
U. S. Rubber Co.
- LAZY-X**
Radiart Corp.
- L-C CHECKER**
Aerovox Corp.
- LEAD CUTTER**
Design Tool Corp.
- LEAD FORMER**
Design Tool Corp.
- LEAD-STRAIGHTENER**
Design Tool Corp.
- LEAK**
British Industries Corp.
- LEARADIO**
Lear, Inc.
- LEARAVIAN**
Lear, Inc.
- LEARMATIC**
Lear, Inc.
- LEARSTAR**
Lear, Inc.
- LEARSTEER**
Lear, Inc.
- LEARSYN**
Lear, Inc.
- LEARTRAN**
Lear, Inc.
- LEATHAFLEX**
Paisley Products, Inc.
- LEATHEROID**
National Vulcanized Fibre Co.
- LECTRODRYER**
Pittsburgh Electrodryer Div. of McGraw-
Edison Co.
- LECTROFLASH**
Telegraph Condenser Co., Ltd.
- LECTROFILTER**
Pittsburgh Electrodryer Co.
- LECTRON**
du Pont de Nemours & Co., Inc., E. I.
- LECTROPACK**
Telegraph Condenser Co., Ltd.
- LECTROVISION**
Transvision, Inc.
- LECTURN**
J. M. Loge Sound Engineers.
- LEDEX**
Leland, Inc., G. H.
- LEESONA**
Universal Winding Co.
- LEETRONICS**
Lee Spring Co.
- LEKTRO**
Conn., Ltd., C. G.
- LEKTROTUNER**
Conn., Ltd., C. G.
- LE-LAND**
Leland Electric Co. Div. of American
Machine & Foundry Co.
- LENITE**
Lab-Tronics, Inc.
- LENSCOTE**
Metavac, Inc.
- LEROY**
Keuffel & Esser Co.
- LEVEL**
White Rodgers Electric Co.
- LEVELOMETER**
Liquidometer Corp.
- LEVELRATOR**
Fischer & Porter Co.
- LEVERPAK**
Continental Can Co., Inc.
- LF**
Design Tool Corp.
- LGP-30**
Librascope, Inc.
- LIFE-LINE**
Westinghouse Electric Corp.
- LIFETONE**
Duotone Co., Inc.
- LIGHT WATCHMAN**
Ripley Co., Inc.
- LIGHTNING BUG**
Vibroflex Co., Inc.
- LIGHTNING SENTRY**
JFD Mfg. Co., Inc.
- LIGNA-SWEEP**
Kay Electric Co.
- LIGNOTITE**
Paisley Products, Inc.
- LIGNOTOX**
Paisley Products, Inc.
- LIMITEMP**
Westinghouse Electric Corp.
- LIMITROL**
Barber-Colman Co.
- LINAGRAPH**
Eastman Kodak Co.
- LINCOLN**
Sangamo Electric Co.
- LIN-DE**
Linde Air Products Co.
- LINDOX**
Unit of Union Carbide & Carbon Corp.
- LINDOX**
Linde Air Products Co.
- LINDOX**
Unit of Union Carbide & Carbon Corp.
- LINEAR STANDARD**
United Transformer Corporation.
- LINEARSYN**
Control Components Co.
- LINEATOR**
Airborne Accessories, Inc.
- LINE-LOK**
I. E. Manufacturing
- LINE-O-FLO**
Barber-Colman Co.
- LINE-O-LIFE**
Carter Motor Co.
- LINE-O-METER**
Simpson Electric Co. Div. of
American Gage & Machine Co.
- LINE-O-POWER**
Foote Brothers Gear & Machine Corp.
- LINE STARTER**
Westinghouse Electric Corp.
- LINE-TITE**
Paul & Stein Bros., Inc., F. H.
- LINICON**
United Condenser Corp.
- LINIOMETER**
Bourns Laboratories, Inc.
- LINIPOT**
Benson-Lehner Corp.
- LINK-LOCK**
Simmons Fastener Corp.
- LINVAR**
Muirhead & Co., Ltd.
- LION**
Southco Division, South Chester
Corp.,
- LIPSTIK**
Altec Lansing Corp.
- LIQUIDENSTOMETER**
Liquidometer Corp.
- LITE-GAGE**
Photocon Research Products.
- LITESTRIP**
Circon Component Co.
- LITHALOID**
Haloid Co., The
- LITHOFAX**
Western Union Telegraph Co.
- LITHOFORM**
American Chemical Paint Co.

LITTLE DEVIL Ohmite Mfg. Co.	LUSTERLAG American Electric Cable Co.	MAGNE-PROBE American Instrument Co., Inc.	MARKA-SWEEP Kay Electric Co.
LITTLEPHONE Hallcrafters Co.	LUSTREX Monsanto Chemical Co.	MAGNEMITE Amplifier Corp. of America.	MARK-N-COUNT May Engineering Co.
LITTLE GEM Sickles Co., F. W. Div. General Instrument Corp.	LUSTROM Monsanto Chemical Co.	MAGNEMUSE Amplifier Corp. of America.	MARKER-PULSER Brubaker Mfg. Co., Inc.
LITTLE GIANT Crucible Steel Co. of America.	LUXAN Rauland Corp.	MAGNE MUSIC Magnecord, Inc.	MARKER-SWEEPER Brubaker Mfg. Co., Inc.
LITTLE GIANT JFD Mfg. Co., Inc.	LUXIDE Celanese Corp. of America.	MAGNEPAINT Micro-Circuits Co.	MARK TWAIN Raytheon Mfg. Co.
LITTLE MAJOR Arro Expansion Bolt Co.	LUXIFLUX Special Chemicals Co.	MAGNEPASTE Micro-Circuits Co.	MARKSMAN West Instrument Corp.
LITTL-LYTIC Sprague Electric Co.	LUXOLENE Deluxe Coils, Inc.	MAGNERAMA Amplifier Corp. of America.	MARRISON-CATHERALL Barker Sales Co.
LIVERMONT Richmont, Inc.	LUXTAR Viewlex, Inc.	MAGNERASER Amplifier Corp. of America.	MARS Staedtler, Inc., J. S.
LLOYD'S Johnson Mfg. Co., Inc.	LUXTRON Bradley Labs., Inc.	MAGNERIBBON Amplifier Corp. of America.	MARS-LUMOGRAPH Staedtler, Inc., J. S.
LNERICSSON Star Stainless Screw Co.	LVSYN Control Components Co.	MAGNESCOPE Amplifier Corp. of America.	MARVELCO National Aircraft Corp.
LOABOND Catalin Corp. of America.	LYN-A-SYN Minatron Corp.	MAGNESIL Magnetics, Inc.	MARVELITE CBC Electronics Co., Inc.
LOADED-X Radiart Corp., The	LYNN LIGHTNING Vaco Products Co.	MAGNASPEED Magnetic Amplifiers, Inc.	MARVELPAK Marvellum Co.
LOALIN Catalin Corp. of America.	LYONS Boulin Instrument Corp.	MAGNESTAT Magnetic Research Corp.	MASCO Simpson Mfg. Co., Inc., Mark.
LO-C Eastern Precision Resistor Corp.	LYRIC Rauland-Borg Corp.	MAGNESYN Eclipse-Pioneer Div.	MASS Massachusetts Gear & Tool Div. of Geartronics Corp.
LOCALITE Fostoria Pressed Steel Corp.	LYTICAP Planet Mfg. Corp.	MAGNETAPE Amplifier Corp. of America.	MASTERLINE Blonder-Tongue Laboratories, Inc.
LOCKFOAM Nopco Chemical Co.	LYTRON Monsanto Chemical Co.	MAGNETER Airtax Products Co.	MASTERLOUIT Kellogg Switchboard & Supply Co.
LOCKNUT Klincher Locknut Corp	MC-126 Specific Products.	MAGNETMATIC Amplifier Corp. of America.	MASTER MARINER Hudson American Corp.
LOCK-ON I. E. Manufacturing	M-C-R-W-S Stevens Mfg. Co., Inc.	MAGNETONE Brush Electronics Co.	MASTER MET Cannon-Muskegon Corp.
LOCK-O-SEAL Wolfe Co., Inc., Franklin C., Div. of The Parker Appliance Co.	MM A&P Metal Products Mfg Corp.	MAGNETREATER Radio Frequency Labs., Inc.	MASTERPHONE Kellogg Switchboard & Supply Co.
LOCKSEAM Superior Tube Co.	M-10 Hudson American Corp.	MAGNETRONIC Cook Electric Co.	MASTERPRO Rek-O-Kut Co.
LOCK-TITE Continental Screw Co.	M-15 Hudson American Corp.	MAGNETTE Heinemann Electric Co.	MASTERTAPE Audio-Master Corp.
LOCK-TITE Thomas & Betts Co.	M-20 Hudson American Corp.	MAGNETWIN Amplifier Corp. of America.	MAT Lansdale Tube Co., Div. of Philco Corp.
LOFYLD Millivac Instrument Corp.	M-24 Hudson American Corp.	MAGNILASTIC Cook Electric Co.	MATCH BOX Johnson Co., E. F.
LOGGER Audio Instrument Co., Inc.	MACADIE British Industries Corp.	MAGNISET Bristol Co., Inc.	MATCHSTICK Johnson Co., E. F.
LOGIBLOC Computer Control Co., Inc.	MAESTRO Reeves Soundcraft Corp.	MAGNISTOR Potter Instrument Co., Inc.	MAVERICK Channel Master Co.
LOGIPAC Computer Control Co., Inc.	MAG Associated American Trading Division.	MAGNITYPER Potter Instrument Co., Inc.	MAXICON British Electronics Sales Co., Inc.
LOGRINC Logistics Research Co., Inc.	MAG-AMP Magnetico, Inc.	MAGNIVIDER Magnetics Research Co.	MAXIMAG Adler Electronics, Inc.
LOHM Driver-Harris Co.	MAGIC GENIE JFD Manufacturing Co., Inc.	MAGNO Driver-Harris Co.	MAXIMAR X-Ray Dept. of General Electric Co.
LOKUTS Shakeproof Div. of Illinois Tool Works.	MAGIC HAND Peerless Photo Products, Inc.	MAGNOCARB Driver Co., Wilbur B.	MAXI-POWER Foote Brothers Gear & Machine Corp.
LOMU Magnetic Metals Co.	MAGIC MIND Webcor, Inc.	MAGNOGRAPH Offner Electronics, Inc.	MAXISERVICE X-Ray Dept. of General Electric Co.
LONG LIFE Marathon Battery Co.	MAGIC RIBBON Brush Electronics Co.	MAGNORITE Norton Co.	MAXISCOPE X-Ray Dept. of General Electric Co.
LONG RANGER Ward Products Corp. Div. of The Gabriel Co.	MAGIC TIPS Hunter Tool Co.	MAGOHM Electric Regulator Corp.	MAXITONE Malco Co., Inc.
LO-OHM Bradford Components, Inc.	MAGIC WAND Ward Products Corp.	MAGSEAL Giannini & Co., Inc., G. M.	MAXEVICK Channel Master Co.
LO-OHM Workman TV, Inc.	MAGIFLEX Transradio, Ltd.	MAIL-A-VOICE Brush Electronics Co.	MAX MIXER Special Products Co.
LOOPOHM Ward Leonard Electric Co.	MAGMETER Airtax Products Co.	MAILTENNAS Insuline Corp. of America.	M. B. C. Ray-O-Vac Co.
LOOPSTICK Superex Electronics Corp.	MAGMOTOR Carter Motor Co.	MALLOCENE Mallory & Co., Inc., P. R.	MC-504SLL Photocon Research Products
LOS GATOS Lewis & Kaufman, Ltd.	MAGNABOND Fischer & Porter Co.	MALLOSIL P. R. Mallory & Co., Inc.	MC-505AS Photocon Research Products
LOTAN Associated American Trading Division.	MAG-NAC Magnetic Devices, Inc.	MALLOTRO Mallory & Co., Inc., P. R.	MCA Molding Corp. of America
LOTEMP Mico Instrument Co.	MAGNA-DIE Whistler & Sons, Inc., S. B.	MALTESE Bache & Co., Semon.	MEASURAY Sheffield Corp., The
LO-VOLT Industrial Devices, Inc.	MAGNADUR Ferroxcube Corp. of America.	MAMCO Master Appliance Mfg. Co.	MEASURTEST Marconi Instruments Ltd.
LOXIT Scovill Mfg. Co.	MAGNAPHONIC Magnasync Manufacturing Co.	MANGANIN Driver Co., Wilbur B.	MECATORN Torgren Co., Inc., C. W.
L. P. Hickok Electrical Instruments Co.	MAGNASHIELD Perfection Mica Co.	MANGRID Driver Co., Wilbur B.	MECATORN-SPYN Torgren Co., Inc., C. W.
L-R Ripley Co., Inc.	MAGNASIGHT Fischer & Porter Co.	MANHATTAN Raybestos-Manhattan, Inc.	MECHA Servomechanisms, Inc.
LS Design Tool Corp.	MAGNA-STRIP Organic Development Corp.	MANU-MATIC Kato Engineering Co.	MECHANIPAK Garlock Packing Co., The
L-T Lab-Tronics, Inc.	MAGNA-STRIPE Reeves Soundcraft Corp.	MAPICO Columbian Carbon Co.	MECHANI-SEAL Fafnir Bearing Co.
L'TATRO Eckstein Radio & Television Co.	MAGNATELE Electro Engineering & Mfg. Co.	MARASET Marblette Corp.	MECHANOPHASE Electro-Voice, Inc.
LUCERO Driver-Harris Co.	MAGNATONE Magna Electronics Co.	MARBELITE CBC Electronics Co., Inc.	MEDALIST Marion Electrical Instrument Co.
LUCITE du Pont de Nemours & Co., Inc., E. I.	MAGNATORC Hansen Mfg. Co., Inc.	MARBELITE Good-All Electric Mfg. Co.	MEDIQUARTZ Dallons Labs.
LUCKY STRIKE Precision Radiation Instruments, Inc.	MAGNEBRAKE Vickers, Inc.	MARCO Celanese Corp. of America Plastics Div.	MEDISCANNER NRD Instrument Co.
LUDOX du Pont de Nemours & Co., Inc., E. I.	MAGNECLUTCH Vickers, Inc.	MARCOL Esso Standard Oil Co.	MEDI-SINE Dallons Labs.
LUG-CLIP Littelfuse, Inc.	MAGNECORDER Magnecord, Inc.	MARCONITE Marconi Wireless Telegraph Co., Ltd.	MEDI-SONAR Dallons Labs.
LUMISCRIP Epic, Inc.	MAGNECORDETTE Magnecord, Inc.	MARI-GUIDE Bludworth Marine Div., Kearfott Co., Inc.	MEDI-SURGICAL Dallons Labs.
LUMARITH Celanese Corp. of America Plastics Div.	MAGNEDISC Texas Instruments, Incorporated	MARINER Hudson American Corp.	MEDITHERM Dallons Labs.
LUMATROL Micro Balancing, Inc.	MAGNEFILE Electronics Corporation of America.	MARNER JFD Mfg. Co., Inc.	MEGA-CHARTS Kay Electric Co.
LUMETRON Photovolt Corp.	MAGNEFLUX Lear, Inc.	MARNERS PATHFINDER Raytheon Mfg. Co.	MEGADIAL Avonex Electronics Corp.
LUSTERIZED American Electric Cable Co.	MAGNE-GAGE American Instrument Co., Inc.	MARK I Avco Mfg. Corp., Crosley Div.	MEGALUME Nerns-Clark, Inc.
	MAGNELOOP Amplifier Corp. of America.	MARK II Technical Devices Co.	MEGA-MARKER Kay Electric Co.
		MARK-TIME Rhodes, Inc., M. H.	MEGA-MATCH Kay Electric Co.

MEGA-NODE
 Kay Electric Co.
MEGA-PIPPER
 Kay Electric Co.
MEGA-PIX
 Kay Electric Co.
MEGA-PULSER
 Kay Electric Co.
MEGA-SWEEP
 Kay Electric Co.
MEGALIGNER
 Kay Electric Co.
MEGALYZER
 Kay Electric Co.
MEGALYZER JR.
 Kay Electric Co.
MEGASTYRENE
 Transradio, Ltd.
MEGATENNA
 Kay Electric Co.
MEGAVAC
 Central Scientific Co.
MEGA-X
 Kay Electric Co.
MEGGER
 Biddle Co., James G.
MEG-METER
 Winslow Co., Inc., The.
MEGA-MARKER SR.
 Kay Electric Co.
MEGOHMER
 Sticht Co., Inc., Herman H.
MEG-O-MAX
 Sprague Electric Co.
MEGOSTAT
 Sprague Electric Co.
MEGOT
 General Hermetic Sealing Corp.
MEGPOT
 General Hermetic Sealing Corp.
MEL
 Measurement Engineering, Ltd.
MELACON
 Photocircuits Corp.
MELEOR
 Astron Corp.
MELLOTONE
 Electron Enterprises
MELMAC
 American Cyanamid Co.
MELODIST
 Altec Lansing Corp.
MELODY MIKE
 Audio Equipment Co., Inc.
MEMOSCOPE
 Millivac Instrument Corp.
MEMOSTAT
 Minnesota Electronics Corp.
MEMOTAPE
 Technical Associates
MEMOTRON
 Hughes Products Division,
 Hughes Aircraft Co.
MENLOLAB
 Menlo Research Laboratory.
MERC-O-SEAL
 Mercury Contacts, Inc.
MERCU-TROL
 Mack Electrical Devices, Inc.
MERCURY
 Electro-Voice, Inc.
MERCURY
 Vulcan Electric Co.
MERCURYSTAT
 Westinghouse Electric Corp.
MERITONE
 Autocrat Electronics Co.
MERITONE
 American Laubscher Corp.
MERITONE-LAUBSCHER
 American Laubscher Corp.
MERITUNE
 Polytech Devices, Inc.
MERL
 Miller Research Laboratories
MERLIN
 Mohawk Electronic Research Labs., Inc.
MERLON
 Monsanto Chemical Co.
MESSAGE REPEATER
 Mohawk Business Machines Corp.
MESSAGE REPEATER JR
 Mohawk Business Machines Corp.
MESURFLO
 Hays Mfg. Co.
META-BASAL PORTABLE
 Electro-Physical Laboratories, Inc.
METAGRAPHIC
 Bristol Co., The
METAL-CAL
 C & H Supply Co.
METALLIZED
 Astron Corp.
METAL MIKE
 Sperry Gyroscope Co.
 Div. of the Sperry Corp.
METAL SHIELD WIRE
 Uniform Tubes
METALASTIC
 Cook Electric Co.
METALASTIC
 Metal Textile Corp.
METALBOSS
 Telegraph Condenser Co., Ltd.
METAL-CELL
 Topatron, Inc.

METALCLAD
 Burgess Battery Co.
METALGUILD
 Fidelity Chemical Products Corp.
METALITE
 Astron Corp.
METALIX
 North American Philips Co., Inc.
METALMITE
 Telegraph Condenser Co., Ltd.
METAL MONITOR
 Brush Electronics Co.
METALPACK
 Telegraph Condenser Co., Ltd.
METALSEAL
 Brush Electronics Co.
METAMETER
 Bristol Co., The
METAPHONE
 Bristol Co., The
METAPLATING
 Metaplast Process, Inc.
METAVANE
 Bristol Co., The
METCLAD
 I-T-E Circuit Breaker Co.
MEYER
 Associated American Trading Division.
METEOR
 Astron Corp.
METER
 Metal Textile Corp.
METER-MATIC
 Leitch Engineering Corp.
METERMATIC
 International Register Co.
METERMAX
 Leeds & Northrup Co.
METEROL
 Automatic Temperature Control Co.
METEX
 Metal Textile Corp.
METL-CAN
 Pyramid Electric Co.
MET-L-FLEX
 Robinson Aviation, Inc.
METLOHM
 British Electronics Sales Co., Inc.
METLOHM
 Litton Industries.
METRIX
 American Metrix Corp.
METRO-LITE
 Viewlex, Inc.
METROPOLITON
 Radion Corp.
METROSCOPE
 Photocon Research Products.
METROTHERM
 General Controls Co.
METSO
 Philadelphia Quartz Co.
MEX
 U. S. Graphite Co., Div. of
 The Wickes Corp.
MEXACOTE
 U. S. Graphite Co., Div. of
 The Wickes Corp.
MEXALLOY
 U. S. Graphite Co., Div. of
 The Wickes Corp.
MEXATOP
 U. S. Graphite Co., Div. of
 The Wickes Corp.
MEXICAN
 U. S. Graphite Co., Div. of
 The Wickes Corp.
MEXITE BRIQUETTES
 U. S. Graphite Co., Div. of
 The Wickes Corp.
MIC
 Molded Insulation Co.
MICABOND
 Continental-Diamond Fibre Corp.
MICADISC
 Telegraph Condenser Co., Ltd.
MICAFIL
 Cosa Corp.
MICA-GLAS
 National Electric Coil Co.
MICANITE
 Mica Insulator Co.
MICARTA
 Westinghouse Electric Corp.
MICO
 Mica Insulator Co.
MICRELAY
 Ebert Electronics Corp.
MICRO
 Minneapolis-Honeywell Regulator Co.
MICRO
 New Hampshire Ball Bearings, Inc.
MICROACT
 Bristol Co., The
MICRO-CAL
 Cubic Corp.
MICROCAST
 Austenal Laboratories, Inc.,
 Microcast Div.
MICRO CIRCLE
 Precise Measurements Co.
MICROCLUTCH
 Magtrol, Inc.
MICROCON
 British Electronics Sales Co., Inc.
MICROCORES
 Magnetic Metals Co.

MICRODIAL
 Borg Equipment Div.
 The George W. Borg Corp.
MICRODRILL
 Teletronics Laboratory, Inc.
MICRODUAL
 Transradio, Ltd.
MICRODYNE
 Audak Co.
MICROFINISH
 American Silver Co., Inc.
MICROFLASH
 General Radio Co.
MICROFLEX
 Eagle Signal Corp.
MICROFUSION
 Cook Laboratories
MICROGAP
 Shure Brothers, Inc.
MICROLAC
 Reeves Soundcraft Corp.
MICROLATOR
 Kay Electric Co.
MICROLINE
 Sperry Gyroscope Co., Div. of
 The Sperry Rand Corp.
MICROLITE
 LOF Glass Fibers Co.
MICROLLON
 DeMornay-Bonard, Inc.
MICROLTER
 Kay Electric Co.
MICROLYTIC
 Micamold Electronics Mfg. Corp.
MICROMAG
 Magnetic Research Corp.
MICROMATCH
 Jones Electronics Co., Inc., M. C.
MICROMAX
 Leeds & Northrup Co.
MICRO-MIKER
 Kay-Lab, Inc.
MICROMITE
 Telegraph Condenser Co., Ltd.
MICROMOTORS
 Redmond Co., Inc.
MICRONAIRE
 Raytheon Mfg. Co.
MICRO-NAMIC
 Micro Balancing, Inc.
MICRONIC
 Audivox, Inc.
MICROPACK
 Telegraph Condenser Co., Ltd.
MICROPADS
 Telewave Labs., Inc.
MICROPAINT
 Micro-Circuits Co.
MICRO-PIN
 Techron Corp.
MICROPOINT
 Duotone Co., Inc.
MICROPOSITIONER
 Barber-Colman Co.
MICROPOT
 Borg Equipment Div.,
 George W. Borg Corp.
MICRO-PROCESSED
 Instrument Specialties Co., Inc.
MICRO-PULSER
 Kay Electric Co.
MICRO-RELAY
 Terado Co.
MICROSEN
 Manning, Maxwell & Moore, Inc.
MICRO-SET MANOSTAT
 Precision Scientific Co.
MICROSIL
 Magnetic Metals Co.
MICRO SURFIT
 Saratoga Scientific.
MICROTESTERS
 Simpson Electric Co. Div.,
 American Gage & Machine Co.
MICROTHERM
 Barber-Colman Co.
MICROTHERM
 Raytheon Mfg. Co.
MICROTORQUE
 Giannini & Co., Inc., G. M.
MICROTROL
 Airborne Instruments Lab., Inc.
MICRO-TROLLER
 Westinghouse Electric Corp.
MICROTRONIC
 Fischer & Porter Co.
MICROVAC
 Stokes Machine Co., F. J.
MICROVOLTER
 Ferris Instrument Co.
MICROWALL
 Rex Corp.
MID
 Hudson American Corp.
MIDDLESEX
 Bogen Co., Inc., David
MIDGET
 Sprague Electric Co.
MIDGETALK
 Simpson Mfg. Co., Inc., Mark
MIDGETAPE
 Mohawk Business Machines Corp.
MIDGETROL
 Mallory & Co., Inc., P. R.
MIDGESTER
 Simpson Electric Co., Div. of
 American Gage & Machine Co.

MIDGI-LYTIC
 Standard Condenser Co.
MIDJET
 Electro Devices Co., Inc.
MIDOHM
 Driver-Harris Co.
MID- α IP
 General Cable Corp.
MIDWAY
 Cardwell Mfg. Corp., Allen D.
MIJAKON
 Fast & Co., John E.
MIKASUB
 Fast & Co., John E.
MIKE
 Cornell-Dubilier Electric Corp.
MIK-O-METER
 Sprague Electric Co.
MILCAPS
 Dumont-Airplane & Marine
 Instruments, Inc.
MILCO
 Miller Mfg. Co., M. A.
MIL-LINE
 Radell Corp.
MILLISADIC
 Consolidated Electrodynamics Corp.
MILLISEC
 Stevens-Arnold, Inc.
MILLISU
 Stevens-Arnold, Inc.
MILOMATIC
 Wilton Tool Mfg. Co.
MILWAUKEE WROT
 Wrought Washer Mfg. Co.
MILWROT
 Wrought Washer Mfg. Co.
MINALITE
 Westinghouse Electric Corp.
MINATROL
 Westinghouse Electric Corp.
MIN-CAPS
 Centralab Div., Globe-Union, Inc.
MINE-A-PHONE
 Stromberg-Carlson Co.,
 Div. of General Dynamics Corp.
MINI-AMP
 Industrial Devices, Inc.
MINI-BEAMS
 Telrex, Inc.
MINIBOX
 Bud Radio, Inc.
MINI-CHOKE
 Suprex Electronics Corp.
MINI-CHOPPER
 Servomechanisms, Inc.
MINICON-X
 Nucent Electronics Co.
MINICUBE
 Sanders Associates, Inc.
MINIDATRAC
 Epsco, Incorporated
MINIFORMER
 Gramer-Halidorsen Transformer Corp.
MINIGANG
 Giannini & Co., Inc., G. M.
MINI-GATOR
 Mueller Electric Co.
MINIGRAIN
 American Silver Co., Inc.
MINIGRAPH
 Westinghouse Electric Corp.
MINI-LINE
 Bailey Meter Co.
MINILYTICS
 Pyramid Electric Co.
MINI MAX
 National Carbon Division,
 Union Carbide & Carbon Corp.
MINI-MIKE
 Telex, Inc.
MINIMITE
 Astron Corp.
MINI-NOISE
 Microdot, Inc.
MINI-OHM
 Sprague Electric Co.
MINIPAK
 Radio Specialty Mfg. Co.
MINIRELAY
 Ebert Electronics Corp.
MINISEL
 Electronic Devices, Inc.,
 Precision Rectifier Div.
MINI-SHIELD
 Staver Co., Inc.
MINI-SIGNAL
 Premier Crystal Labs., Inc.
MINI-SPRING
 Staver Co., Inc.
MINITAPE
 Stancil-Hoffman Corp.
MINITORQUE
 Giannini & Co., Inc., G. M.
MINI-VOLT
 Industrial Devices, Inc.
MIN-KAPS
 Centralab Div. of Globe-Union, Inc.
MINSUA
 Keuffel & Esser Co.
MINUTE MAN
 Ward Products Corp.,
 Div. of The Gabriel Co.
MIP
 Amphenol Electronics Corp.
MIRACLE-X
 Good-Ail Electric Mfg. Co.

MIRADO
Eagle Pencil Co.

MIRAGLAS
Mitchell-Rand Insulation Co., Inc.

MIRALITE
Mitchell-Rand Insulation Co., Inc.

MIRALLOY
Texas Instruments Incorporated

MIROC
Mitchell-Rand Insulation Co., Inc.

MIROPOINT
Duotone Co., Inc.

MIRROSCOPE
Simpson Electric Co., Div.,
American Gage & Machine Co.

MI-TEE-RAY
Fretco, Inc.

MIX-N-WHIP
Howard Industries, Inc.

M. L. S.
Paisley Products, Inc.

M M M
Midwest Molding & Manufacturing Co.

MOBILFONE
Mobile Electronics Mfg. Co.

MOBIL-MIKE
Electro-Voice, Inc.

MOBILTONE
Mobil Electronics Mfg. Co.

MODAC
Airborne Instruments Lab., Inc.

MODELEC
Modelectric Products Corp.

MODIFIED HILO
Driver Co., Wilbur B.

MODUFLOW
Minneapolis-Honeywell Regulator Co.

MODUCCELL
Topatron, Inc.

MODULE
ACF Electronics

MODULINE
Sprague Electric Co.

MODULITE
Berndt-Bach, Inc.

MODULITE
Electronic Control Corp.

MODU-RAK
Premier Metal Products Co.

MODUTROL
Minneapolis-Honeywell Regulator Co.

MODUTRONIC
Bill Jack Scientific Instrument Co.

MODU-WAVE
Sciaky Bros., Inc.

MOHICAN
Sangamo Electric Co.

MOISTEMP
Rockbestos Products Corp.

MOLARC
Mole-Richardson Co.

MOLDARTA
Westinghouse Electric Corp.

MOLDEX
Neosil Products Div. of Rubber
Associates, Inc.

MOLDITE
National Moldite Co.

MOLD-KAP
Centralab Div. of Globe-Union, Inc.

MOLDLOCK
American Brass Co.

MOLDTEX
Racon Electric Co.

MOLDTITE
United Condenser Corp.

MOLECU DRYER
Hayes, Inc., C. I.

MOLECULE SQUEEZER
Robinette Co., W. C.

MONARCH
Birmingham Sound Reproducers Ltd.

MONEL
International Nickel Co., Inc.

MONISEAL
Magnetic Metals Co.

MONISEAL "444"
Carpenter Steel Co.

MONITORADIO
I. D. E. A., Inc.

MONITORADIO
Radio Apparatus Corp.

MON-KEY
Electric Eye Equipment Co.

MONOBLOC
Winchester Electronics Co.

MONOCELL
Fortiphone Ltd.

MONOCOIL
Kupfrian Mfg. Co.

MONOLYTHIC
Sprague Electric Co.

MONOMATIC
Pentron Corp.

MONOMOTORS
Redmond Co., Inc.

MONO-PAC
Beltone Hearing Aid Co.

MONOPLEX
Shure Brothers, Inc.

MONOSET
Bristol Co., The.

MONOSET
Telex, Inc.

MONOSTRIP EP
Mona Industries, Inc.

MONOTUBE
Tuttle & Kift

MORNINGSTAR
Paisley Products, Inc.

MORSE EUREKA
Morse Co., Frank W.

MOTO-MAGS
Keystone Products Co.

MOTO-MITE
Globe Industries, Inc.

MOTORLITE
Ward Leonard Electric Co.

MOTOR-MIKE
Electro Capacitors Co.

MOTOR WATCHMAN
Westinghouse Electric Corp.

MOT-O-TROL
Westinghouse Electric Corp.

MOTRON
Robinette Co., W. C.

MOYNO
Robbins & Myers, Inc.

MPB
Miniature Precision Bearings, Inc.

M-R-C
Marlin-Rockwell Corp.

MSRD
Menlo Research Laboratory.

M-SCOPE
Fisher Research Lab, Inc.

MU
Acro Mfg. Co.

MUCHROHM
Magnetic Metals Co.

MUFAX
Muirhead & Co., Ltd.

MUGWUMP
Radio Merchandise Sales, Inc.

MULLARD
International Electronics Corp.

MUL-TEL
Brach Mfg. Corp.

MULTI-ANALYST
Electronic Instrument Co., Inc.

MULTICARDIOTRON
Electro-Physical Labs.

MULTI-CELL
Shielding, Inc.

MULTICON
British Electronics Sales Co., Inc.

MULTICON
Standard Electronics Corp.

MULTICORE
British Industries Corp.

MULTICOUNTER
Atomic Instrument Co.

MULTI-ELMAC
Multi-Products Co.

MULTIFLEX
Eagle Signal Corp.

MULTI-GATE
Hammarlund Mfg. Co.

MULTI-LOW-RANGE
Dillon & Co., Inc., W. C.

MULTI-MASTER
Precision Apparatus Co., Inc.

MULTIMETER
Rawson Electrical Instrument Co.

MULTIPAC
Dubrow Development Co.

MULTIPLANE
Lord Mfg. Co.

MULTIPOT
Ford Engineering Co.

MULTIPRESS
Denison Engineering Div., American
Brake Shoe Co.

MULTI-PULSER
Kay Electric Co.

MULTI-RECTIFIER
Green Electric Co., Inc.

MULTISCOPE
Acme Teletronix Div.
Nea Service Inc.

MULTISOURCE
Applied Research Labs.

MULTI-SPEED
Pentron Corp.

MULTI-SWAGE
Bead Chain Mfg. Co.

MULTITROL
Ward Leonard Electric Co.

MULTI-VENT
Pyle-National Co.

MULTIVIDEO
Industrial Television, Inc.

MULTIVISION
Industrial Television, Inc.

MULTIVOLT
Ohmite Mfg. Co.

MUL-TV
Jerrold Electronics Corp.

MUMETAL
Telegraph Construction &
Maintenance Co., Ltd.

MU NET
Sickles, F. W. Div.
General Instrument Corp.

MURFAX
Muirhead & Co., Ltd.

MUROSOCPE
Simpson Electric Co. Div. of
American Gage & Machine Co.

MUSIC LOVER
Shure Brothers, Inc.

MUSIC MASTER
M. P. Engineering Co.

MUSITRON
Waters Conley Co., Inc.

MUTED-STYLUS
Shure Brothers, Inc.

MVR
Sorensen & Co., Inc.

M/W GAIN SET
Kay Electric Co.

MYERS LABELSTIK
Ellis & Sons, Inc., George D.

MYKAPLAST
Film Capacitors, Inc.

MYKAPLAST
United Condenser Corp.

MYKE-A-TROL
Industrial Electronics, Inc.

MYKROY
Electronic Mechanics, Inc.

MYLAR
du Pont de Nemours & Co., Inc.,
E. I.

NPC
Nucleonic Products Co.

NS
National Semiconductor Products
Div. of Hoffman Electronics Corp.

NA-ALD
Alden Products Co.

NAFLI
Lear, Inc.

NALCO
National Lead Co.

NALCO
North American Electric Lamp Co.

NALCOBRITE
North American Electric Lamp Co.

NAMCO
National Acme Co.

NAPSEAL
Johns-Manville

NARCO
National Aeronautical Corp.

NARCO OMNIGATOR
National Aeronautical Corp.

NARCO OMNIHOMER
National Aeronautical Corp.

NARCO SAPPHIRE
National Aeronautical Corp.

NARCO SIMPLEXER
National Aeronautical Corp.

NARCOIL
NRC Equipment Corp.

NARESCOIL
NRC Equipment Corp.

NARL
North American Research Labs., Inc.

NARLINER
NRC Equipment Corp.

NASAT
Westinghouse Electric Corp.

NATCO
National Tel-Tronics Corp.

NATFAB
National Fabricated Products
Div. of Hoffman Electronics Corp.

NATIONAL
Valco Mfg. Co.

NATIONAL-HOLLYWOOD
Standard Record Mfg. Co.

NATITE 150
National Ceramic Co.

NAUGAHYDE
U. S. Rubber Co.

NAUTILUS
Hudson American Corp.

NAVAJO
Sangamo Electric Co.

NAVASEAL
Johns-Manville

NAVACOR
Navigation Computer Corp.

N-CAP
Eastern Precision Resistor Corp.

N-CASE
Epoxy Products, Inc.

NEBROC
Hitemp Wires, Inc.

NEC
Navigation Electronics Corp.

NEG'ATOR
Hunter Spring Co.

NELCO
Chemical Products Corp.

NEOLAC
U. S. Stoneware Co.

NEMCO
National Electronic Mfg. Corp.

NEO-CURK
Auburn Mfg. Co., The

NEOFLOW
Peerless Photo Products, Inc.

NEOLAY
U. S. Rubber Co.

NE-O-LITE
General Cement Mfg. Co.

NEOMITE
Elgin National Watch Co.,
Electronics Div.

NEOTEL
General Cable Corp.

NEPCO
National Electric Products Co.

NEPEC
Centralab Div.,
Globe Union Inc.

NESA
Pittsburgh Plate Glass Co.

NESTIER
Doepke Mfg. Co., Inc., Chas. Wm.

NET
New England Transformer Co.

NETIC
Perfection Mica Co.

NETCO
New England Tope Co.

NEURON
Autron Engineering, Inc.

NEUTRASEAL
Cook Electric Co.

NEVA TIP
Radio Merchandise Sales, Inc.

NEVERSLIP
Philadelphia Steel & Wire Corp.

NEYDIUM
Ney Co., J. M.

NEY-ORO
Ney Co., J. M.

NICAD
Nickel Cadmium Battery Corp.

NIAGRITE-ASBESTOMENT
Johns-Manville

NICHROME
Driver-Harris Co.

NICORO
Western Gold & Platinum Co.

NICUSIL
Western Gold & Platinum Co.

NIFER
Metals & Controls Corp.,
General Plate Div.

NIKROTHAL
Kanthal Corp.

NILSTAIN
Driver Co., Wilbur B.

NILVAR
Driver-Harris Co.

999 "PLUS"
Handy & Harman.

NIORO
Western Gold & Platinum Co.

NIREX
Driver-Harris Co.

NITELIGHTER
Fisher-Pierce Co., Inc.

NITE-T-LITE
Littelfuse, Inc.

NITRATE-ASBESTOMENT
Johns-Manville.

NITREMANG
Foote Mineral Co.

NITRON
Monsanto Chemical Co.

NITRONEAL
Baker & Co., Inc.

NIVAC-P
Vacuum Metals Corp.

NIXIE
Burroughs Corp.

NOARK
Federal Electric Products Co.

NO-BATT
Bristol Co., The.

NOBATRON
Sorensen & Co., Inc.

NOBLELOY
Continental Carbon, Inc.

NOBLETTE
Continental Carbon, Inc.

NOBLEWEST
Noble & Westbrook Mfg. Co.

NOBL-OHM
Fairchild Controls Corp., Components
Div.

NOBRUSH
Georator Corp.

NODRSEAL
Johns-Manville.

NOFLAME-COR
Cornish Wire Co.

NOISERASER
Minnesota Electronics Corp.

NOKORODE
Dunton Co., M. W.

NO LEAK
Marathon Battery Co.

NOMU
Magnetic Metals Co.

NON-LINK
Positive Lock Washer Co.

NONSTRIP
Rex Corp., The.

NO-OX
Walsco Electronics Corp.

NOPOFOAM
Nopco Chemical Co.

NORBIDE
Norton Co.

NORCO
Nortronics Co., Inc.

NORELCO
Philips Electronics, Inc.

NORPLEX
Northern Plastics Corp.

NORTHAM
North American Instruments, Inc.

NORWOOD
Control Engineering Corp.

NO SPAT
Midland Paint & Varnish Co.

NO-TOX
Electrovox Co., Inc.

NOX-TARNISH
Daubert Chemical Co.

NTC
Keystone Carbon Co., Inc.

N. U.
National Union Electric Corp.

NU-BLAC
Star Porcelain Co.

NU-BLOK
United Mfg. & Service Co.

NU BLOK, JR.
United Mfg. & Service.

NU-BRAZEE
American Silver Co., Inc.

NU CAP
Set Screw Mfg. Co.

NUCLEOMETER
Radiation Counter Laboratories, Inc.

NUCOR
Nuclear Corp. of America, Inc.

NUMAR
Nuclear Magnetics Corp.

NUSO
Esso Standard Oil Co.

NU TIP
Mallory & Co., Inc., P. R.

NU-TRONIC
Nuclear-Electronics Corp.

NU-TWIST
Mallory & Co., Inc., P. R.

NWL
Nothelfer Winding Labs.

NU-WAY
Marshall Associates, Inc., John.

NU WRINKLE CAP
Mallory & Co., Inc., P. R.

NW 25
Kelllogg Co., M. W.

NYCO
New York Coil Co.

NYFORM
Acme Wire Co.

NYGRIP
Weckesser Co.

NYLAFLOW
Polymer Corp., The

NYLASINT
Polymer Corp., The.

NYLATINT
Polymer Corp., The.

NYLATRON
Polymer Corp., The.

NYLAWELD
Polymer Corp., The

NYLEX
Boston Insulated Wire & Cable Co.

NYLINED
Thomson Industries, Inc.

NYLOCLIP
Burndy Corp.

NYLO-FAST
Anti-Corrosive Metal Products Co.

NYLON
du Pont de Nemours & Co., Inc., E. I.

NYLON-ZIP
Waldes Kohlnoor Inc.

NYLONITE
Plastic Wire & Cable Corp.

NYPOT
Associated Research, Inc.

NYTRAN
New York Transformer Co., Inc.

NYVAR
Acme Wire Co.

101
Continental Communications, Inc.

110
Continental Communications, Inc.

OAKWOOD
Osborn Products

OBSERVER
Blonder-Tongue Laboratories, Inc.

OCGO
Ohio Crankshaft Co.

OCTOHL
Eastman Kodak Co.

OFB
Ortho Filter Corp.

OFHC
American Metal Co., Ltd., The.

OHIO
Ohio Carbon Co.

OHMAX
Driver-Harris Co.

OHMOID
Wilmington Fibre Specialty Co.

OHM-SPUN
States Co.

OHMSTONE
Johns-Manville

OILDAG
Acheson Colloids Co.

OILMITE
Tobe Deutschmann Corp.

"O. K."
General Cable Corp.

OKLIP
Burndy Corp.

OKOBESTOS
Okonite Co.

OKOGLASS
Okonite Co.

OKOLENE
Okonite Co.

OKOLITE
Okonite Co.

OKOPRENE
Okonite Co.

OKOSEAL
Okonite Co.

OMNI-GLOW
Industrial Devices, Inc.

OMNIMATIC
Lear, Inc.

OMNIMETER
Lear, Inc.

OMNIONETER
Radiation Counter Laboratories, Inc.

OMNIPACK
Lear, Inc.

OMNISCOPE
Lear, Inc.

OMNITENNA
Lear, Inc.

OMNITENNA
Tennalab

O-PAC
Opad Electric Co.

OPALON
Monsanto Chemical Co.

OPCO
Onondaga Pottery Works

OPENACTOR
Jeffers Electronics Div. of
Speer Carbon Co.

OPTIMATIC
Minneapolis-Honeywell Regulator Co.

OPTIMIKE
Instrument Development
Laboratories, Inc.

OPTO-MATIC
Trico Fuse Mfg. Co.

OPTOSIL
Amersil Co., Inc.

ORATRON
OMCO

ORI-FLORATOR
Fischer & Porter Co.

ORIENTED
Armco Steel Corp.

ORIENTER
Lear, Inc.

ORIZON
Monsanto Chemical Co.

ORPHEUS
International Research Associates.

ORLON
du Pont de Nemours & Co., Inc., E. I.

ORTHONIK
Armco Steel Corp.

ORTHONIK
Westinghouse Electric Corp.

ORTHONOL
Magnetics, Inc.

ORTHO-SIL
Thomas & Skinner, Inc.

ORYX
Television Accessories Co.

OSAGE
Sangamo Electric Co.

OSCAR
Benson-Lehner Corp.

OSCILLATRON
Vectron, Inc.

OSCILLO-RECORD
Fairchild Camera & Instrument Corp.

OSISO
Westinghouse Electric Corp.

OSTUCO
Ohio Seamless Tube Div. of Copperweld
Steel Co.

OUNCER
United Transformer Corporation.

OVALTUBE
Plastoid Corp.

OXLEY
British Radio Electronics, Ltd.

OXWELD
Linde Air Products Co.

OXYHEMOGRAPH
Unit of Union Carbide & Carbon Corp.

PHOTOCON
Research Products.

OYLITE-STIK
Lake Chemical Co.

OZALID
General Aniline & Film Corp.

OZAMATIC
Ozalid Div. General
Aniline & Film Corp.

P. A.
Aerovox Corp.

P-A-B-X
Automatic Electric Sales Corp.

P & B
Potter & Brumfield.

P-28
Cook Ceramic Mfg. Co.

PAC
Erle Resistor Corp.

PACE
Electronic Associates, Inc.

PACE
Precision Apparatus Co., Inc.

PACEMAKER
Johnson Co., E. F.

PACER
Sprague Electric Co.

PACE-SETTER
J F D Mfg. Co., Inc.

PACIFIC
Transformer Engineers.

PACITRON
Simmonds Aerocessories, Inc.

PACKMASTER
Radio Specialty Mfg. Co.

PAD-KAGING
Peters-Dalton, Inc.

PAGEMASTER
Electronic Control Systems, Inc.

PAGEMASTER
Scantlin Electronics.

PAGEMASTER
Stromberg-Carlson Co. Div. of General
Dynamics Corp.

PAINSTIKS
Markal Co.

PAINTON
British Electronics Sales Co., Inc.

PAINTON-WINKLER
British Electronics Sales Co., Inc.

PAISOL
Paisley Products, Inc.

PAISTEX
Paisley Products, Inc.

PAISTIC
Paisley Products, Inc.

PAISTICK
Paisley Products, Inc.

PAKAP
Audio Products Corp.

PAK-FONE
Industrial Radio Corp.

PAL
J F D Mfg. Co., Inc.

PAL
Palnut Co., Inc.

PALINEY
Noy Co., J. M.

PAMCO
Paraplegics Mfg. Co., Inc.

PANADAPTOR
Panoramic Radio Products, Inc.

PANALYZOR
Panoramic Radio Products, Inc.

PANARAMA
JFD Mfg. Co., Inc.

PANARAMIC EXPOSURE SHIELD
Technical Operations, Inc.

PANDEX
Westinghouse Electric Corp.

PANDUX
Pacific Transducer Corp.

PANEL
Pan-Electronics Corp.

PANDRAMA
J F D Mfg. Co., Inc.

PANEL
Dzus Fastener Co., Inc.

PANEL-CHANEL
Stahlin Brothers, Inc.

PANELOC
Scovill Mfg. Co.

PANELSCOPE
Waterman Products Co., Inc.

PANELYTE
St. Regis Paper Co.

PAN-I-LITE
Alden Products Co.

PANORADIO
Panoramic Radio Products, Inc.

PANORAMIC
Radio Merchandise Sales, Inc.

PANORAMOSCOPE
Panoramic Radio Products, Inc.

PANOSCOPE
Panoramic Radio Products, Inc.

PANTO
Preis Engraving Machine Co., H. P.

PAPERITE
Acme Wire Co.

PARA-CON
Ward Products Corp.
Div. of The Gabriel Co.

PARACORE
U. S. Rubber Co.

PARA-FLUX
Radio Music Corp.

PARAFORMED
Paramount Paper Tube Corp.

PARAGON
Keuffel & Esser Co.

PARALEAD
Chester Cable Corp.

PARATEX
Blocksom & Co.

PAR GYRO
Summers Gyroscope Co.

PARISIANOID
Parisian Novelty Co.

A. B. PARKER
Television Accessories Co.

PARLON
Hercules Powder Co., Inc.

PARTRIDGE
British Electronics Sales Co., Inc.

PATHFINDER
Sangamo Electric Co.

PATRICIAN
Electro-Voice, Inc.

PATTERSON
du Pont de Nemours & Co., Inc., E. I.

PAWNEE
Sangamo Electric Co.

PAYOFFPAK
Continental Can Co., Inc.

P-A-X
Automatic Electric Sales Corp.

PDCP
Phelps Dodge Copper Products Co.

P. E. C.
Centralab Div.
Globe Union Inc.

P.E.C.
Precision Electronic Components, Ltd.

PEAK-METER
Control Devices, Inc.

PEAKTROL
Control Corp.

PECKMASTER
Radio Specialty Mfg. Co.

PECO
Pacific Electriccord Co.

PECO
Pomona Electronics Co., Inc.

PEDASINE
Fisher & Co., R. A.

PEDIGREE
George Co., P. D.

PEE-CEE
Printed Cellophane Tape Co.

PEERAGE
Electro-Voice, Inc.

PEERLESS
Altec Lansing Corp.

PEERLESS
General Cable Corp.

PEERLESS
National Vulcanized Fibre Co.

PEE-WEE
Mueller Electric Co.

PEG-BOARD
Butler Mfg. Co., Inc., B. B.

PEM
Penn Engineering & Mfg. Corp.

PENACOLITE
Koppers Co., Inc.

PENCO
Pacific Electro-Nuclear Co.

PENDET
Centralab Div. of
Globe-Union, Inc.

PEPCO
Peerless Electrical Products Div.
of Altec Lansing Corp.

PERCEPTOSCOPE
Sonotone Corp.

PERFECTION
National Felt Co.

PERFECT-O-CUT
Tablet & Ticket Co.

PERIDYNAMIC
Jensen Mfg. Co.

PERKINS
Westinghouse Electric Corp.

PERMA-A-CAPS
Chicago Condenser Corp.

PERMACELL
U. S. Rubber Co.

PERMA-CODE
Brady Co., W. H.

PERMACODE
Revere Corp. of America, Sub. of
Neptune Meter Co.

PERMAGRID
Driver Co., Wilbur B.

PERMA-GRIP
Avery Adhesive Label Corp.

PERMADINE
American Chemical Paint Co.

PERMAKAY
Motorola Communications &
Electronics, Inc.

PERMALINE
Columbia Wire & Supply Co.

PERMALLOY
Arnold Engineering Co.

PERMALLOY
Standard Telephones & Cables, Ltd.

PERMA-MOLD
Randall, Inc., Douglas.

PERMANICKEL
International Nickel Co., Inc.

PERMANITE
Foote Mineral Co.

PERMANITE
I-T-E Circuit Breaker Co.

PERMA-NUTS
Tubular Rivet & Stud Co.

PERMAPAPER
Sanborn Co.

PERMAPLAST
Richardson Co., The

PERMA-POWER
General Transformer Corp.

PERMASEAL
Sprague Electric Co.

PERMA-SWITCH
Centralab Div. of
Globe-Union, Inc.

PERMATAGS
Actioncraft Products.

PERMATORQ
Cambridge Thermionic Corp.

PERMENDUR
Arnold Engineering Co.

PERMENDUR
Standard Telephones & Cables, Ltd.

PERMENDUR
Telegraph Construction &
Maintenance Co., Ltd.

PERMENORM
Arnold Engineering Co.

PERMERON
I-T-E Circuit Breaker Co.

PERMI-CAL
Topflight Corp.

PERMO
Fidelfitone, Inc.

PERMOCARB
Driver Co., Wilbur B.

PERMO COMPOUNDS
Hardman Co., Inc., H. V.

PERMOGRAPH
Electro-Physical Labs., Inc.

PERMO POINT
Fidelfitone, Inc.

PERMO-SWITCH
Centralab Div. of Globe-Union, Inc.

PESCO
Borg-Warner Corp.

PETITE
Mitchell Industries, Inc.

PETTI-SEL
Radio Receptor Co.

PFAN-TONE
Pfanstiehl Chemical Corp.

PFAN-WOOD
Pfanstiehl Chemical Co.

P-50
Superior Tube Co.

PHALOCORD
Phalo Plastics Corp.

PHALON
Phalo Plastics Corp.

PHANTOM
Ward Products Corp. Div. of
The Gabriel Co.

PHASATROL
Mallory & Co., Inc., P. R.

PHASEFORMER
Eastern Specialty Co.

PHASEOMETER
Winco Electronics

HAZOR
Industrial Test Equipment Co.

PHENOCEL
Plastilite, Inc.

PHENOFLEX
Dielectric Materials Co.

PHENOL FIBRE
Taylor Fibre Co.

PHENOLITE
National Vulcanized Fibre Co.

PHENOWELD
Hardman Co., Inc., H. V.

PHILHARMONIC
Espey Mfg. Co., Inc.

PHILLIPS
Harper Co., H. M.

PHIL-TROL
Phillips Control Corp.

PHONE AID
Remler Company

PHONOLA
Waters Conley Co.

PHONOPHRAGMS
Magnetic Metals Co.

PHONOSTROBE
Berkshire Laboratories.

PHOS-COPPER
Westinghouse Electric Corp.

PHOSON
United Wire & Supply Corp.

PHOSNIC
Chase Brass & Copper Co., Inc.

PHOSTUBE
All-State Welding Alloys, Co., Inc.

PHOTOFINISH #4
Photocircuits Corp.

PHOTOSWITCH
Electronics Corporation of America.

PHOTACT
Keuffel & Esser Co.

PHOTELOMETER
Central Scientific Co.

PHOTO-ARC
Peerless Photo Products

PHOTOLINE
Bruning Co., Inc., Charles

PHOTOLUX
Westinghouse Electric Corp.

PHOTO-MARK PROCESS
Precision Marking Co.

PHOTOPHONE
Radio Corporation of America.

PHOTO-TROLLER
Westinghouse Electric Corp.

PHOTOTRON
Thomas Electronics, Inc.

PHOTOTRONIC
Weston Electrical Instruments Co.

PHOTOX
Westinghouse Electric Corp.

PHOTRONIC
Weston Electrical Instruments Co.

PHOZOR
Industrial Test Equipment Co.

PI-CAPS
Chicago Condenser Corp.

PICBOOST
CBC Electronics Co., Inc.

PICOPACK
Telegraph Condenser Co., Ltd.

PIC-SYNC
Fairchild Recording Equipment Co.

PICK-A-SHAFT
Clarostat Mfg. Co., Inc.

P. I. D.
Burnell & Co.

PIEZO-RAY
Commercial Research Labs., Inc.

PIG-TAILOR
Bruno-New York Industries Corp.

PILOSTAT
Minneapolis-Honeywell Regulator Co.

PILOTONE
Pilot Radio Corp.

PILOTROL
Bailey Meter Co.

PILOTUNER
Pilot Radio Corp.

PINCOR
Pioneer Gen-E-Motor Corporation.

PINHEAD
Sprague Electric Co.

PINK PEARL
Eberhard Faber Pencil Co.

PIN-POINTER
Radio Merchandise Sales, Inc.

PIONEER
Bendix Aviation Corp.

PIONEER
Chase Mfg. Co.

PIP
Heli-Coil Corp.

PIP-A-ROO
JFD Mfg. Co., Inc.

PIPETITE-STIK
Lake Chemical Co.

PIP-JET
JFD Mfg. Co., Inc.

PIROUETTE
Presto Recording Corp.

PISTOGRIP
Wall Mfg. Co.

PITLOG
Pitometer Log Corp.

PIX-EYE
Radio Merchandise Sales, Inc.

PIXIE
Cook Electric Co.

PIXIE
Burroughs Corp.

PIXIE
Wells & Winegard

P-K
Parker Kalon Division of
General American Transportation Corp.

PL
Penta Laboratories, Inc.

PLANOFAX
Times Facsimile Corp.

PLASCAP
Mallory & Co., Inc., P. R.

PLASCENE
Chester Cable Corp.

PLA-CIR
Motorola Communications &
Electronics, Inc.

PLASCET
Fischer & Porter Co.

PLASKOIL
Grammer-Halldorson Transformer Corp.

PLASKON
Barrett Div., Allied Chemical
& Dye Corp.

PLASTACELE
du Pont de Nemours & Co., Inc., E. I.

PLASTAPACK
Telegraph Condenser Co., Ltd.

PLASTIBOND
National Engineering Products, Inc.

PLASTICON
Condenser Products Div. New Haven
Clock & Watch Co.

PLASTICON
Plastic Wire & Cable Corp.

PLASTICORD
Chester Cable Corp.

PLASTICORE
Chester Cable Corp.

PLASTICOTE
Chester Cable Corp.

PLASTI-FLEX
Auburn Mfg. Co., The.

PLASTIFLEX
Calresin Corp.

PLASTI-GROMMETS
Fastex Div. of Illinois Tool Works

PLASTIK-707
United Technical Laboratories.

PLASTIK-TUL
Industrial Development & Mfg. Corp.

PLASTILOKT
Precision Paper Tube Co.

PLASTINITE
Fastex Div. of Illinois
Tool Works.

PLASTI-PAK
Centralab Div. of Globe-Union, Inc.

PLASTIPEEL
Protective Coatings Corp.

PLASTI-PLUGS
Fastex Div. of Illinois Tool Works

PLASTI-RINGS
Fastex Div. of Illinois
Tool Works.

PLASTI-RIVETS
Fastex Div. of Illinois
Tool Works.

PLASTISEL
Electronics Devices, Inc.,
Precision Rectifier Div.

PLASTI-SUPPORTS
Fastex Div. of Illinois Tool Works

PLASTITE
Whitney Blake Co.

PLASTOK
Richardson Co., The

PLASTOLYTIC
Condenser Manufacturers, Inc.

PLASTO-PAK
Standard-Toch Chemicals, Inc.

PLASTRONICS
Maico Co., Inc.

PLASTURBO
Master Appliance Mfg. Co.

PLATE-LOK
Boots Aircraft Nut Co.

PLATO
Raytheon Mfg. Co.

PLAYAL
Sonotone Corp.

PLAYBOY
Carbonneau Industries, Inc.

PLENCO
Plastics Engineering Co.

PLENTI-POWER
Westinghouse Electric Corp.

PLEXICON
Erie Resistor Corp.

PLIABOOK
Paisley Products, Inc.

PLIASTIC
Paisley Products, Inc.

PLIATAS
Paisley Products, Inc.

PLICA
Flexaust Co., The

PLIOBOND
Goodyear Tire & Rubber Co.

PLIOFLEX
Goodyear Tire & Rubber Co., The

PLIOGRIP
Goodyear Tire & Rubber Co.

PLIOLITE
Goodyear Tire & Rubber Co.

PLIOTHERM
Goodyear Tire & Rubber Co.

PLIO-TUF
Goodyear Tire & Rubber Co.

PLIOVIC
Goodyear Tire & Rubber Co.

PLUG BOTTOMS
United-Carr Fastener Corp.

PLUG-IN
JFD Mfg. Co., Inc.

PLUG-IN-LINE
Alden Systems Co.

PLUGLINES
Jacobs Instrument Co.

PLUG-STAT
Control Products, Inc.

PLUMBER KRAK-STIK
Lake Chemical Co.

PLUS MODULE
Ansley Mfg. Co., Arthur
Pentron Corp., Inc.

PLYACIEN
Reichhold Chemicals, Inc.

PLYAMINE
Reichhold Chemicals, Inc.

PLYAMUL
Reichhold Chemicals, Inc.

PLYMASTER
Rubber & Asbestos Corp.

PLYMOUTH
Colorstone Electronics, Inc.

PLYOPHEN
Reichhold Chemicals, Inc.

PLYPAK
Hinde & Dauch

PLYTUBULAR
Tennalab

PM
Electro-Mechanical Div. of
General Riveters, Inc.

PN
Brush Electronics Co.

P-N
Pyle-National Co.

PNR
Rockbestos Products Co.

PNEUMATROL
Fischer & Porter Co.

POCKET POWER
Cook Co., Frank R.

POCKETSCOPE
Waterman Products Co., Inc.

PODROMETER
Branson Instruments, Inc.

POINTARC
Western Union Telegraph Co.

POLAROID
Pioneer Scientific Corp.

POLAR PATH
Eclipse-Pioneer Div., Bendix
Aviation Corp.

POLETRON
Antara Chemicals Div., General
Aniline & Film Corp.

POLEX
Union Plastics Corp.

POLICALARM
Radio Apparatus Corp.

POLICARB
Driver Co., Wilbur B.

POLINEAR RECORDER
Sound Apparatus Co.

POLYCO
Borden Co., The, Chemical Div.

POLYCO
Polymer Corp., The

POLYCOUPLER
C. G. S. Laboratories, Inc.

POLYFILM
Extruders, Inc.

POLYIRON
Aerovox Corp.

POLYLITE
Reichhold Chemicals, Inc.

POLYMETER
Sylvania Electric Products, Inc.

POLYOHM
Polytechnic Research & Development
Co., Inc.

POLY-PEDANCE
Chicago Standard Transformer Corp.

POLYPENCO
Polymer Corp., The

POLYPHANE
Technical Tape Corp.

POLYRAD
Intersearch, Inc.

POLYRANGER
Sensitive Research Instrument Corp.

POLYTAPE
Extruders, Inc.

POLYTHENE
du Pont de Nemours & Co., Inc., E. I.

POLYTHERM
Dielectric Materials Co.

POLY-V
Raybestos-Manhattan, Inc.

POLYVAR
Acme Wire Co.

POLY-VISO
Sanborn Co.

POLYWELD
Amphenol Electronics Corp.

PONGOMETER
Acton Laboratories, Inc.

PONOGOMETER
Technology Instrument Corp.

POP
United Shoe Machinery Corp.

PORO TUBE
Lamtex Industries, Inc.

PORTA-FLEXER
Miskella Infra-Red Co.

PORTAFONE
Stewart Warner Electric Div.,
Stewart-Warner Corp.

PORT-A-PHONE
Feller Engineering & Mfg. Co.

PORTA-KALL
Loge Sound Engineers, J. M.

PORTAPOWDER
Cornell-Dubilier Electric Corp.

PORTAPOWDER
Electronic Labs., Inc.

PORTA-POWER
General Transformer Corp.

PORTENTIOTROL
Barber-Colman Co.

PORTOCO
Taller & Cooper Co.

PORTOMASTER
Peck & Harvey

PORT-O-REEL
Industrial Electrical Works

PORTOVENT
Flexaust Co., The

PORTRAYA
Haloid Co., The

POST-DRYER
Bar-Ray Products, Inc.

POSH TEMP
Bar-Ray Products, Inc.

POST-LITE
Littelfuse, Inc.

POSTLITE
Drake Mfg. Co.

POTENTIALS
Barber-Colman Co.

POTPOT
Clarostat Mfg. Co., Inc.

POTTERMETER
Potter Aeronautical Corp.

POWDERMET
Yale & Towne Mfg Co.,
Powdered Metal Products Div.

POWERCHARGER
Fox Products Co.

POWEREEL
Industrial Electrical Works

POWERFAC
Schweitzer, Inc., Peter J.

POWER FIREBALL
JFD Mfg. Co., Inc.

POWER-FLEX
Dumore Co., The

POWER HELIX
JFD Mfg. Co., Inc.

POWERLOID
Guardian Electric Mfg. Co.

POWERMASTER
Hupp Electronics Co.,
A Div. of Hupp Corp.

POWER-O-MATIC
Blue M Electric Co.

POWERPILE
Minneapolis-Honeywell Regulator Co.

POWERSEL
Electronic Devices, Inc.,
Precision Rectifier Div.

POWERSPAN
Videon Electronic Corp.

POWERSTAT
Superior Electric Co.

POWER STREAK
American Electric Cable Co.

- POWER-TENNA**
G-C Electronics Mfg. Co., Div. of
G-C Textron, Inc.
- POWRARM**
Wilton Tool Mfg. Co.
- POWRLOCK**
Wilton Tool Mfg. Co.
- POWRPAGE**
University Loudspeakers, Inc.
- POWRMIKE**
University Loudspeakers, Inc.
- POWR-PAKT**
Alliance Mfg. Co.
- POWR-RIB**
Ohmite Mfg. Co.
- PPG**
Pittsburgh Plate Glass Co.
- PHAMS**
Jordan Electronics, Inc.
- PRC**
Pacific Resistor Co.
- P.R.C.**
Precision Resistor Co.
- PRD**
Polytechnic Research & Development
Co., Inc.
- PRECEDENT**
Radio Engineering Labs., Inc.
- PRECEPTON**
Sonotone Corp.
- PRECIPITRON**
Westinghouse Electric Corp.
- PRECISE-OHM**
Precision, Inc.
- PRECISIONER**
Malco Co., Inc.
- PRECISION-GAUGED**
Precision Products Co.
- PRECOP-TIC**
Edmund Scientific Corp.
- PREDICO**
Beam Instruments Corp.
- PRE-FAB**
Wiegand Co., Edwin L.
- PREGWOOD**
Formica Co.
- PREMAX**
Chisholm-Ryder Co., Inc.
- PRESET**
Bristol Co., The
- PRESS-FIT**
Sealectro Corp.
- PRESS-I-CELL**
Fischer & Porter Co.
- PRESSITE**
West Virginia Pulp & Paper Co.
- PRESSOVAC**
Central Scientific Co.
- PRES-SURE**
Buchanan Electrical Products Corp.
- PRESSURE BLAST**
Cro-Plate Co., Inc.
- PRESSUREGRAPH**
Electro Products Labs., Inc.
- PRES-SURE-SPLICE**
Buchanan Electrical Products Corp.
- PRES-SURE-TOOL**
Buchanan Electrical Products Co.
- PRESSURETROL**
Minneapolis-Honeywell Regulator Co.
- PRESTEEL**
Worcester Pressed Steel Co.
- PRESTEST**
Miller Mfg. Co., M. A.
- PRESTIGE**
Bud Radio, Inc.,
- PRESTITUTE**
Westinghouse Electric Corp.
- PREST-O-LITE**
Linde Air Products Co.,
Unit of Union Carbide & Carbon Corp.
- PREST-O-WELD**
Linde Air Products Co.,
Unit of Union Carbide & Carbon Corp.
- PRINTMASTER**
Ozalid Div.
General Aniline & Film Corp.
- PRINTATE**
American Printed Circuits Co.
- PRINTOHM**
Sprague Electric Co.
- PRINT-STIK**
Topflight Corp.
- PRIVATE-EYE**
American Photocopy Equipment Co.
- PRIVATE EYE**
Television Utilities Corp.
- PRIVATE LINE**
Connecticut Telephone & Electric
Corp.
- PRIVATEER**
Hudson American Corp.
- PRIVATEL**
North Electric Co.
- PROCESS INK**
Markwik Mfg. Co., Inc.
- PRODAG**
Acheson Colloids Co.
- PRODUCTIMETERS**
Durant Manufacturing Co.
- PRODUCTS OF MERIT**
Coil & Transformer Corp.
- PROFESSIONAL**
Precision Radiation Instruments, Inc.
- PROGAN**
Langevin Mfg. Co.
- PROKAN**
Sprague Electric Co.
- PROMATIC**
General Control Company
- PROMCO**
Progressive Mfg. Co.
- PROTECTOGLO**
Minneapolis-Honeywell Regulator Co.
- PROTECTORELAY**
Minneapolis-Honeywell Regulator Co.
- PROTECT-O-VANE**
Minneapolis-Honeywell Regulator Co.
- PROTECTOX**
Technic, Inc.
- PROTELGram**
North American Phillips Co., Inc.
- PROTOMAKA**
Printed Electronics Corp.
- PROTOTYPE**
Phillips Process Co., Inc.
- PROVAC**
Electronic Designs, Inc.
- PRYSTAL**
Catalin Corp. of America
- PSI**
Pacific Semiconductors, Inc.
- PTF**
Minnesota Mining & Mfg. Co.
- PUEBLO**
Sangamo Electric Co.
- PULSESCOPE**
Waterman Products Co., Inc.
- PULSER-SWEEPER**
Brubaker Mfg. Co., Inc.
- PULSIGNAL**
A. R. F. Products, Inc.
- PULSITE**
Airpax Products Co.
- PULSITOMETER**
Electronic Specialty Co.
- PULSOLITE**
Electronic Control Corp.
- PULTEC**
Pulse Techniques, Inc.
- PURETONE**
Sonotone Corp.
- PURGERATOR**
Fischer & Porter Co.
- PURIFIL**
Electric Eye Equipment Co.
- PUROMATIC**
Barnstead Still & Sterilizer Co., Inc.
- PUROX**
Linde Air Products Co.
Unit of Union Carbide & Carbon Corp.
- PUSH-LOK**
Sprague Electric Co.
- PUSHNUTS**
Palmnut Co., Inc.
- PUSH-PULL**
James Vibrapowr Co.
- PWC**
Plastic Wire & Cable Corp.
- PY-CAPS**
Chicago Condenser Corp.
- PYCNORATOR**
Fischer & Porter Co.
- PYGMY**
Vulcan Electric Co.
- PYLE-O-FLEX**
Pyle-National Co.
- PYLETS**
Pyle-National Co.
- PYNACORD**
Pentron Corp.
- PYRALIN**
du Pont de Nemours & Co., Inc., E. I.
- PYRANOL**
General Electric Co.
- PYRA SHELL**
Auburn Button Works, Inc.
- PYREX**
Corning Glass Works
- PYROCON**
Illinois Testing Labs., Inc.
- PYROHM**
Aerovox Corp.
- PYROLANCE**
Illinois Testing Labs., Inc.
- PYROMARK**
Templi Corp.
- PYROMASTER**
Bristol Co., The
- PYROMIC**
Telegraph Construction &
Maintenance Co., Ltd.
- PYROTRON**
Bristol Co., The
- PYROTRON**
Bailey Meter Co.
- PYROVAC**
Eitel-McCullough, Inc.
- PYR-O-VANE**
Minneapolis-Honeywell Regulator Co.
- PYROVISOR**
Bristol Co., The
- Q-BESTUN**
Auburn Mfg. Co., The.
- Q FASTENERS**
Fastex Div. of Illinois Tool Works.
- Q-LACE**
Guthman Div. of Essex Wire Corp.
- Q-MAX**
Communication Products Co., Inc.
- Q METER**
Boonton Radio Corp.
- "Q"-PROBE**
Transitron, Inc.
- QM 136**
Barrett Varnish Co.
- QIKLUG**
Burndy Corp.
- QIKTAP**
Burndy Corp.
- Q STANDARD**
Boonton Radio Corp.
- Q-SWEEP**
Kay Electric Co.
- Q-T**
Superelex Electronics Corp.
- Q. U. A. O.**
Beam Instruments Corp.
- QUAD**
Barker Sales Co.
- QUAD-EX**
Telrex, Inc.
- QUADRALINE**
Radio Engineering Labs., Inc.
- QUADREX**
Westinghouse Electric Corp.
- QUAD RING**
Minnesota Rubber & Gasket Co.
- QUADROCONDEX**
Westinghouse Electric Corp.
- QUAD-TRONIC**
Wappler, Inc.
- QUANTOGRAPH**
Applied Research Labs.
- QUANTOMETER**
Applied Research Laboratories
- QUARTET**
Califone Corp.
- QUARTZ Q**
Millen Mfg. Co., James
- QUEEN**
Gray Instrument Co.
- QUELARC**
Pyle-National Co.
- QUICK GRIP**
Perfection Mica Co.
- QUICKLAG**
Westinghouse Electric Corp.
- QUICK-LOCK**
Simmons Fastener Corp.
- QUICK-PIVOT**
JFD Mfg. Co., Inc.
- QUIETONE**
Cornell-Dubilier Electric Corp.
- QUIK-CALL**
Motorola, Inc.
- QUIK-CONNECT**
Aircraft-Marine Products, Inc.
- QUIK-LABEL**
Brady Co., W. H.
- QUIK-MASKS**
Brady Co., W. H.
- QUIK-RIG**
JFD Mfg. Co., Inc.
- QUIK-SHOT**
Kemode Mfg. Co., Inc.
- QUIK-SIGN**
Brady Co., W. H.
- QUILON**
du Pont de Nemours & Co.,
Inc., E. I.
- QUINORGO**
Johns-Manville
- QUINORGOBORD**
Johns-Manville
- QUINTENNA**
Tennalab
- QUINTERRA**
Johns-Manville
- QUINTERRABORD**
Johns-Manville
- QUINTETTE**
Radio Merchandise Sales, Inc.
- QWIK**
Amphenol Electronics Corp.
- QX CHECKER**
Boonton Radio Corp.
- R-313**
Biggs Co., Carl H.
- "R" MONEL**
International Nickel Co., Inc., The.
- RCP**
Radio City Products Co., Inc.
- RFC**
Radio Frequency Co.
- RACON BROADBAND**
Racon Electric Co.,
- RADACOL**
Magnetic Core Corp.
- RAD-A-COR**
Magnetic Core Corp.
- RADALIGNER**
Kay Electric Co.
- RADALYZER**
Kay Electric Co.
- RADA-PULSER**
Kay Electric Co.
- RADAIR**
Bassett Inc., Rex.
- RADALARM**
Communications Co., Inc.
- RADAMETER**
Raytheon Mfg. Co.
- RADA-NODE**
Kay Electric Co.
- RADARANGE**
Raytheon Mfg. Co.
- RADA SWEEP**
Kay Electric Co.
- RADAX**
Electro-Voice, Inc.
- RADAX SUPER**
Electro-Voice, Inc.
- RADECTOR**
Jordan Electronics, Inc.
- RADELIN**
U. S. Radium Corp.
- RADELL**
I.D.E.A., Inc.
- RADENE**
Reed-Curtis Nuclear Industries, Inc.
- RADEX**
Birnback Radio Co., Inc.
- RADEX**
Boston Insulated Wire & Cable Co.
- RADIAC**
Arnhold Ceramics, Inc.
- RAD-I-ACC**
Pratt & Whitney Co., Inc.
- RADI-AIRE**
Reynolds Electric Co.
- RADIALLOY-TIPPED**
Radial Cutter Corp.
- RADIAMATIC**
Minneapolis-Honeywell Regulator Co.
- RADICOM**
Crosby Labs., Inc.
- RADIFLOW**
Reed-Curtis Nuclear Industries, Inc.
- RADIOGRAPH**
NRD Instrument Co.
- RADIMAX**
NRD Instrument Co.
- RADIO ALLOY**
Driver Co., Wilbur B.
- RADIOCARB**
Driver Co., Wilbur B.
- RADIOCRAFTER**
Technicraft Co.
- RADIOEAR**
Myers & Sons, E. A.
- RADIOFOCAL**
Lord Mfg. Co.
- RADIOHM**
Driver-Harris Co.
- RADIOHM**
Centralab Div. of
Globe-Union, Inc.
- RADIOLA**
Radio Corp. of America.
- RADIOMARINE**
Radio Corp. of America.
- RADIOMETAL**
Telegraph Construction &
Maintenance Co., Ltd.
- RADIOPAK**
Kaar Engineering Co.
- RADIO-PILOT**
Fisher Research Lab.
- RADIOSTAT**
Allen-Bradley Co.
- RADIOTECHNIC**
Peirce Wire Recorder Corp.
- RADIOTHERM**
Westinghouse Electric Corp.
- RADIOTRON**
Radio Corp. of America.
- RAFAX**
Haller, Raymond & Brown, Inc.
- RAKSCOPE**
Waterman Products Co., Inc.
- RAMS**
Jordan Electronics, Inc.
- RANAREX**
Permutit Co.
- RAN GUARDS**
Northern Metal Products Co.
- RAN RACKS**
Northern Metal Products Co.
- RAN TOTES**
Northern Metal Products Co.
- RANCHOPRENE**
Western Insulated Wire Co.
- RANCHO**
Western Insulated Wire Co.
- RANGELUG**
Frankel Connector Co.
- RANGER**
JFD Mfg. Co., Inc.
- RANGER**
Johnson Co., E. F.
- RANGER**
Sorensen & Co., Inc.
- RANGER**
Westinghouse Electric Corp.
- RANGERCORD**
Rangertone, Inc.
- RANGEREORDER**
Rangertone, Inc.
- RANGRETTE**
Rangertone, Inc.
- RANGESPLICES**
Frankel Connector Co.
- RANGETAPS**
Frankel Connector Co.
- RANJOLA**
Rangertone, Inc.
- RATIOTRAN**
Gertsch Products, Inc.
- RATOG ATE**
Fischer & Porter Co.
- RATOGATE**
Fischer & Porter Co.

RATOGGRAPHIC
Fischer & Porter Co.

RATOLARM
Fischer & Porter Co.

RATOMATIC
Fischer & Porter Co.

RATOSIGHT
Fischer & Porter Co.

RATOSLEEVE
Fischer & Porter Co.

RATOTRONIC
Fischer & Porter Co.

RATOWEIR
Fischer & Porter Co.

RAYBOULD
Scovill Manufacturing Co.

RAYCHRONIX
Radioactive Products, Inc.

RAYCHRONOMETER
Radioactive Products, Inc.

RAYDIST
Hastings-Raydist, Inc.

RAYFUSER
Radioactive Products, Inc.

RAYMERSON
Trumbull Dept. of General Electric Co.

RAYOFLEX
Schott Co., Walter L.

RAYONIC
Waterman Products Co., Inc.

RAYOTUBE
Leeds & Northrup Co.

RAYPHOTO
Times Facsimile Corp.

RAYSONDE
Friez Instrument Div.,
Bendix Aviation Corp.

RAYTECTOR
Miller Associates

RAYTHERM
Raytheon Mfg. Co.

RAYTOMIC
Atomic Research Corp.

RAYTRAN
Raypar, Inc.

RAY-X
Raytheon Mfg. Co.

R B & W
Russell, Burdall &
Ward Bolt & Nut Co.

R/C
Radio Condenser Co.

RCA
Radio Corp. of America.

RCA VICTOR
Radio Corp. of America.

RCL
Radiation Counter Laboratories, Inc.

RdF STIKON
Ruge Associates, Inc., Arthur G.

REAC
Reeves Instrument Corp.

REACONVERTER
Rea Co., J. B.

REACTRON
United Condenser Corp.

REACTRON
Ward Leonard Electric Co.

READIX
Rea Co., J. B.

READY COUNT
Alden Systems Co.

REAPAK
Rea Magnet Wire Co., Inc.

REATHERM
Rea Co., J. B.

RECARB-X
U. S. Graphite Co.
Div. of The Wickes Corp.

RECIPOT
Giannini & Co., Inc., G. M.

RE-CIRK-IT
Heineman Electric Co.

RECITALIST
Rek-O-Kut Co. Inc.

RECO
Rectifier Engineering Co.

RECO
Reynolds Electric Co.

RECORDALL
Miles Reproducer Co., Inc.

RECORD-FLOW
Watson Mfg. Co., Inc.

RECORDOMATIC
Precision Scientific Co.

RECORDSCOPE
Aremac Associates.

RECOSTAT
Regulator Equipment Corp.

RECTALOY
Union Switch & Signal Div. of Westinghouse Air Brake Co.

RECTICHARGER
Raytheon Mfg. Co.

RECTIFILTER
Raytheon Mfg. Co.

RECTIGON
Westinghouse Electric Corp.

RECTIGRAPH
Haloid Co., The

RECTI-RINGER
Raytheon Mfg. Co.

RECTI/RITER
Texas Instruments Incorporated

RECTISEL
Electronic Devices, Inc.,
Precision Rectifier Div.

RECTODYNE
Christie Electric Corp.

RECTOMATIC
Westinghouse Electric Corp.

RECTOPLATER
Mallory & Co., Inc., P. R.

RECTOPOWER
Mallory & Co., Inc., P. R.

RECTOSTARTER
McColpin-Christie Corp.

RECTOSTARTER
Mallory & Co., Inc., P. R.

RECTOTRUCK
Mallory & Co., Inc., P. R.

RECTOX
Westinghouse Electric Corp.

RED-D
Diamond Wire & Cable Co.

REDDOT
International Rectifier Corp.

REDIFON
Beam Instruments Corp.

REDI-RIG
Radio Merchandise Sales, Inc.

REDIVUE
Bar-Ray Products, Inc.

RED LETTER
Ruby Chemical Co.

RED SEAL
Radiart Corp.

RED SEAL
Radio Corporation of America

REDSKIN
Sangamo Electric Co.

RED-WOOD
JFD Mfg. Co., Inc.

REEDEER
Reeder Co., Charles M.

REEVELEC
Reeve Electronics, Inc.

REFLECTOGAGE
Sperry Products, Inc.

REFLECTOSCOPE
Sperry Products, Inc.

REFLEX TRUMPETS
University Loudspeakers, Inc.

REFRACTALLOY
Westinghouse Electric Corp.

REFRASIL
Thompson Fiberglass Co., H. L.

REGATRON
Electronic Measurements Co.

REGENCY
Electro-Voice, Inc.

REGENCY
I.D.E.A., Inc.

REGEN
Birmingham Sound Reproducers Ltd.

REGEN
Duotone Co., Inc.

REGOHM
Electric Regulator Corp.

REGOMATIC
CBC Electronics Co., Inc.

REGOVAC
Technical Apparatus Builders

REGULAR
Paramount Paper Tube Corp.

REGULITE
Ward Leonard Electric Co.

REGULOMETER
Electronic Specialty Co.

REGUMATIC
CBC Electronics Co., Inc.

REJAFIX
Popper & Sons, Inc.

REJUVATER
Teletest Instrument Corp.

REL
Radio Engineering Labs., Inc.

RELAYMATIC
Kellogg Switchboard & Supply Co.

RELIABLE MAILERS
Corrugated Paper Products, Inc.

RELIACAP
Sanders Associates, Inc.

RELIACUBE
Sanders Associates, Inc.

RELIAPAK
Sanders Associates, Inc.

RELIAPLATE
Sanders Associates, Inc.

RELIASTRON
Westinghouse Electric Corp.

RELIO
U. S. Rubber Co.

RELIOHM
Sanders Associates, Inc.

RELOID
Guardian Electric Mfg. Co.

REMALOY
Arnold Engineering Co.

REMCON
Pyramid Instrument Corp.

REMOTE-O-CABLE
JFD Mfg. Co., Inc.

REN
Nebel Lab., R. E.

REO-D
Diamond Wire & Cable Co.

REPAIRACK
JFD Mfg. Co., Inc.

RESERVISOR
Teleregister Corp.

RESIGUM
Paisley Products, Inc.

RESIMENE
Monsanto Chemical Co.

RESIN-FIVE
Kester Solder Co.

RESINITE
Precision Paper Tube Co.

RESINITE
Borden Co.

RESINITE
Resin Industries

RESINOX
Monsanto Chemical Co.

RESI-RAP
Paisley Products, Inc.

RESISTOL
Collyer Insulated Wire Co.

RESLOOM
Monsanto Chemical Co.

RESOMAX
Link Aviation, Inc.

RESTORONIC
Fischer & Porter Co.

RETMA #770
Stone City Machine & Tool Co., Inc.

RETTAX
Roanwell Corp.

REVCOTHENE
Revere Corporation of America
Sub. of Neptune Meter Co.

REVERSO-MISSION
Airborne Accessories, Inc.

REVMASER
Opad Electric Co.

REVOLUTE-4
Paragon-Revolute Corp.

REVOLUTE COMET
Paragon-Revolute Corp.

REVOLUTE JUMBO
Paragon-Revolute Corp.

REVOLUTE METEOR
Paragon-Revolute Corp.

REVOLUTE ROCKET
Paragon-Revolute Corp.

REVOLUTE STAR
Paragon-Revolute Corp.

REX
Crucible Steel Company of America.

REX
Shure Brothers, Inc.

REX-FLEX
Flexonics Corp.

REX-KF
Rex Corp., The

REXLACE
Rex Corp., The

REX NON-STRIP
Rex Corp., The

REXOLITE
Rex Corp., The

REXSELEN
Knopp, Inc.

REXTRUDE
Rex Corp., The

REX-TUBE
Flexonics Corp.

REXVANE
Westinghouse Electric Corp.

REXWELD
Crucible Steel Company of America.

REX-WELD
Flexonics Corp.

REZISTAL
Crucible Steel Company of America.

REZSEAL
Sprague Electric Co.

REHOTROL
Barber-Colman Co.

RFI
Ace Engineering & Machine Co., Inc.

RHINOBESTOS
Westinghouse Electric Corp.

RHODEX
Sel-Rex Corp., Precious Metals Div.

RHOMAX
Magnetic Metals Co.

RHOMETAL
Telegraph Construction &
Maintenance Co., Ltd.

RHOMIZED
Rho Engineering Co.

RHOMU
Magnetic Metals Co.

RHYTHMASTER
Rek-O-Kut Co., Inc.

RIBBON HEAT
Cox & Co., Inc.

RIBFLEX
Ward Leonard Electric Co.

RIBOHN
Ward Leonard Electric Co.

RICAP
Radio Industries, Inc.

RICHELAIN
Richardson Co., The

RIGHT OFF THE SHELF
Star Stainless Screw Co.

R.I.G.
United Mineral & Chemical Corp.

R. I. P.
Westinghouse Electric Corp.

RING-JET
Stokes Co., F. J.

RINKELOID
Standard-Toch Chemicals, Inc.

RITEOHM
Ohm Mfg. Co.

RITRAN
Radio Industries, Inc.

RIVER EDGE
British Industries Corp.

RIV-O-SEAL
Wolfe Co., Franklin, Div. of the
Parker Appliance Co.

R-J
British Industries Corp.

RK
Raytheon Mfg. Co.

R/M
Raybestos-Manhattan, Inc.

R & M
Robbins & Myers, Inc.

R M B
Landis & Gyr, Inc.

RMC
Radio Materials Corp.

R. M. C.
Radio Music Corp.

RME
Electro Voice Mfg. Co., Inc.

RME
Radio Mfg. Engineers, Inc.

RMS
Radio Merchandise Sales, Inc.

ROBARN
Rome Cable Corp.

ROBOLITES
Universal Microphone Co.

ROBOMATIC REFRACTOMETER
Precision Scientific Co.

ROBOT-EYE
Standard Instrument Corp.

ROBOTROL
Reliance Automatic Lighting Co.

ROCKET
Olympic Radio & Television Co.

ROCKLOID
Standard-Toch Chemical, Inc.

ROCKSHAFT
Cook Electric Co.

ROCKTEMP
Rockbestos Products Corp.

RODAR
Driver Co., Wilbur B.

ROEBX
Roebbling's Sons Corp., John A.

ROECLAD
Roebbling's Sons Corp., John A.

ROECORD
Roebbling's Sons Corp., John A.

ROEGLAS
Roebbling's Sons Corp., John A.

ROEPLASTIC
Roebbling's Sons Corp., John A.

ROEPRENE
Roebbling's Sons Corp., John A.

ROESHEATH
Roebbling's Sons Corp., John A.

ROETEMP
Roebbling's Sons Corp., John A.

ROEVAR
Roebbling's Sons Corp., John A.

ROEWELD
Roebbling's Sons Corp., John A.

RO FLEX
Rome Cable Corp.

ROGER
Roanwell Corp.

ROL-DEX
Watson Mfg. Co., Inc.

RO LENE
Rome Cable Corp.

ROLLIN
BJ Electronics Div. of
Borg-Warner Corp.

ROLLOCON
Circon Component Co.

ROLLPINS
Elastic Stop Nut Corp.

ROLOX
Hardman Co., Inc., H. V.

ROL-TOP
Boots Aircraft Nut Corp.

RO MARINE
Rome Cable Corp.

ROMECL
Lear, Inc.

ROMEX
General Cable Corp.

ROUNDINE
Rek-O-Kut Co.

RO NEON
Rome Cable Corp.

RO PRENE
Rome Cable Corp.

ROTABRAKE
Lear, Inc.

ROTALYZER
Kay Electric Co.

ROTASEAL
General Hermetic Sealing Corp.

ROTO BEAM
Kings Electronics Co.

ROTOBRIDGE
Communication Measurements
Lab., Inc.

ROTO FORMER
Westinghouse Electric Corp.

ROTO-KING
JFD Mfg. Co., Inc.

ROTO-LOCK
Simmons Fastener Corp.

ROTOLOK
Airborne Accessories, Inc.

ROTHMASTER Master Appliance Mfg. Co.	RYERTEX Ryerson & Son, Inc., Joseph T.	SCOUT Sangamo Electric Co.	SENTINEL Johnson-Williams, Ltd.
ROTHMATIC Johnson Co., E. F.	SBT Lansdale Tube Co. Div. of Philco Corp.	SCULUG Burdry Corp.	SENTINEL Photobell Company, Inc.
ROTO-MERC Brach Div. Electronic Research, General Bronze Corp.	S.E.C. Standard Electronics Corp.	SCREWBALL Fretco Inc.	SENTINEL Westinghouse Electric Corp.
ROTO-MERC General Bronze Corp.	SEI Television Zoomar Corp.	SCREW-LOCK Heli-Coil Corp.	SEPIATONE Frederick Post Co.
ROTHMOUNT Premax Products Div., Chisholm-Ryder, Inc.	SERC Standard Electronics Research Corp.	SCRIBE Permoflux Corp.	SERAMELITE Good-All Electric Mfg. Co.
ROTORAC Airborne Accessories, Inc.	SIE Southwestern Industrial Electronics Co.	SEAFONE Hallcrafters Co.	SERIES X Astron Corp.
ROTO RANGER Simpson Electric Co., Div. American Gage & Machine Co.	S & J Shands & Jurs Co., Sub. of General Precision Equipment Corp.	SEAL SILICATE Philadelphia Quartz Co.	SERRASOID Radio Engineering Labs., Inc.
ROTORETTE Airborne Accessories Corp.	SK Skottle Electronics, Inc.	SEALBRITE London Chemical Co.	SERVATRON Raytheon Mfg. Co.
ROTOROID Burnell & Co., Inc.	SPX Technic, Inc.	SEALDOHM Daven Co.	SERVICE SPOOL Alpha Wire Corp.
ROTHOSIL Amersil Co., Inc.	SRX Hupp Electronics Co., A Div. of Hupp Corp.	SEALEX General Ceramics Corp.	SERVISLIDE Remler Co., Ltd.
ROTO-SPEED General Devices, Inc.	SADIC Consolidated Electrodynamics Corp.	SEALNUT Radio Frequency Labs., Inc.	SERVICE-MIKE Cornell-Dubilier Electric Corp.
ROTOSTEPPER Giannini & Co., Inc., G. M.	SAFE-HED Matthews & Co., James H.	SEAL-O-FLANGE Communication Products Co., Inc.	SERVE-A-UNIT Alden Products Co.
ROTOTIMER Farmer Electric Products Co., Inc.	SAFE-T-GLOW Brach Mfg. Corp.	SEALSTIX Central Scientific Co.	SERVOBOARD Servo Corp. of America
ROTO-TORK Havdon Co., A. W., The.	SAFE-T-KLIP Industrial Devices, Inc.	SEALVAC A Vacuum Metals Corp.	SERVOCON Servo Corp. of America
ROTOTROL Westinghouse Electric Co.	SAFE-T-PLUG Industrial Devices, Inc.	SEA SCOUT Lavoie Laboratories	SERVOFLASS Servo Corp. of America
RO-TRAN Rome Cable Corp.	SAFE-T-PLUG Littelfuse, Inc.	SECO Stewart Engineering Co.	SERVOFLEX Servo Corp. of America
ROV-A-LITE Terado Co.	SAFE-T-SPARKY Littelfuse, Inc.	SECODE Electrical Communications Co.	SERVOFLIGHT Servo Corp. of America
ROWEX Rowe Engravers	SAFETY M I General Cable Corp.	SECRETEER Malco Co., Inc.	SERVOFRAX Servo Corp. of America
ROYAL Permoflux Corp.	SAFETY MARGIN Astron Corp.	SEEL Automatic & Precision Mfg. Co.	SERVOGRAPH Servo-Tek Products Co.
ROYAL Precision Radiation Instruments, Inc.	SAFETY PLUS Chicago Screw Co., The.	SEELBOLT Automatic & Precision Mfg. Co.	SERVOMATION Servo Corp. of America
ROYAL II Electro-Voice, Inc.	SAFE-R-WIPE Redmond Company, Inc.	SEELRIUIT Automatic & Precision Mfg. Co.	SERVO-MISSION Airborne Accessories, Inc.
ROYAL CORD U. S. Rubber Co.	SAFE TV GUARD JFD Mfg. Co., Inc.	SEELSKREW Automatic & Precision Mfg. Co.	SERVOSCOPE Servo Corp. of America
ROYAL GOLD Kaiser Aluminum & Chemical Sales, Inc.	SAFLEX Monsanto Chemical Co.	SEEZAK U M & F Mfg. Corp.	SERVOSPEED Electro Devices, Inc.
ROYAL JEWEL Jensen Industries, Inc.	SAL BRICK American Solder & Flux Co.	SEGMISTOR Consolidated Resistance Co. of America	SERVOSYN Servo Corp. of America
ROYAL MASTER U. S. Rubber Co.	SALESOMATIC West Coast Electronics Co.	SEISMAC Texas Instruments Incorporated	SERVOSYNTH Servo Corp. of America
ROYALITE U. S. Rubber Co.	SANACOUSTIC Johns-Manville	SEISMATION Texas Instruments Incorporated	SERVOTHERM Servo Corp. of America
ROYALITIC Industrial Condenser Corp.	SAND-MEX U. S. Graphite Co., Div. of The Wickes Corp.	SELECTO-CALL Federal Telephone & Radio Co.,	SERVOTRON Raytheon Mfg. Co.
RO ZONE Rome Cable Corp.	SANFORD-BENNET Rubicon Co.	SELECT-O-MATIC Seeburg, J. P., A Div. of Fort Pitt Industries, Inc.	SEVEN LEAGUES AHEAD Thermador Electric Mfg. Co.
ROZONE-ROPRENE Rome Cable Corp.	SARA Taller & Cooper Co.	SELECTOPHON Audio-Master Corp.	SHADOWCONTROL Autotron Co., The
ROZONE-ROSEAL Rome Cable Corp.	SARAH Simmonds Aerocessories, Inc.	SELECT-O-PHONE Kellogg Switchboard & Supply Co.	SHADOWCOUNT Autotron Co., The
R P C Resistance Products Co.	SARAN Bolta Products Div., General Tire & Rubber Co.	SELECTOVISION Communication Measurements Lab. Inc.	SHADOWMASTER Autotron Co., The
R S M C Radio Specialty Mfg. Co.	SARAN Dow Chemical Co.	SELECTRON Pittsburgh Plate Glass Co.	SHAKEPROOF Illinois Tool Works
R T L Pelrice Wire Recorder Corp.	SARATOGA Espey Mfg. Co., Inc.	SELECTRO-PLATERS Green Electric Co., Inc.	SHAWNEE Sangamo Electric Co.
RTV Clarostat Mfg. Co., Inc.	SARDAP Nuclear Research Corp.	SELEKTA Associated American Trading Division	SHEARCUTTER Shearcut Tool Co.
RUBAL Ruby Chemical Co.	SAUCERLINE Fretco Inc.	SELENIFER American Rectifier Corp.	SHELF-PAK Centralab Div. of Globe-Union, Inc.
HUBBON All-State Welding Alloys Co., Inc.	SAUTER Cramer Controls Corp.	SELETRON Radio Receptor Co.	SHIELD BRAND Mitchell-Rand Insulation Co., Inc.
RUBCORD U. S. Rubber Co.	SAVOY Camburn, Inc.	SELF CHECKING Sensitive Research Instrument Corp.	SHOCK-BILT MAILERS Corrugated Paper Products, Inc.
RUB-EROK Richardson Co., The	SCAICO Cooper Co., Clark	SELF FLUBE Keystone Carbon Co., Inc.	SHOCKPROOF Industrial Transformer Co.
RUBKLEEN Eberhard Faber Pencil Co.	SCALE-O-MATIC Technical Associates	SELF SERVICE American Scientific Development Co.	SHOK-LOK Automatic Electric Sales Corp.
RUBSEC U. S. Rubber Co.	SCALEOMETER Liquidometer Corp.	SELKAR Sprague Electric Co.	SHOP-PACK Heli-Coil Corp.
RUB-TEX Richardson Co., The	SCHOTT Walsco Electronics Mfg. Co.	SEL-LOK Standard Pressed Steel Co.	SHU-ELD Atmosphere Control Co.
RUBYFLUID Ruby Chemical Co.	SCHUYLERNIT Schuyler Mfg. Corp.	SEMINOLE Sangamo Electric Co.	SHUNTRATOR Fischer & Porter Co.
RUBYTS Ruby Chemical Co.	SCINFLEX Scintilla Div., Bendix Aviation Corp.	SEMITRON Westinghouse Electric Corp.	SHUREHEAT Kwikheat Mfg. Co.
RUCCO Ruby Chemical Co.	SCINTILLATOR Precision Radiation Instruments, Inc.	SEMS Lamson & Sessions Co.	SHURFLO Anchor Metal Co.
RUF KOAT General Cement Mfg. Co.	SCINTIMETER Reed-Curtis Nuclear Industries, Inc.	SEMS Shakeproof Div. of Illinois Tool Works.	SHUR-FLO Hays Mfg. Co.
RULAN du Pont de Nemours & Co., Inc., E. I.	SCINTIMONITOR Reed-Curtis Nuclear Industries, Inc.	SENCO Service Instrument Co.	SHUR GRIP Parker-Kalon Corp.
RULON Dixon Corp.	SCINTISCALER Reed-Curtis Nuclear Industries, Inc.	SENECA Sangamo Electric Co.	SHUT-OUT JFD Mfg. Co., Inc.
RUNT Eastern Precision Resistor Corp.	SCINTISCANNER Reed-Curtis Nuclear Industries, Inc.	SENNTRONIC Senn Corp.	SHURE-STAKE Thomas & Betts Co.
RURALAY General Cable Corp.	SCINTISCOPE Reed-Curtis Nuclear Industries, Inc.	SENSATHERM Mercoild Corp.	SHUVEE Entron Inc.
RUSH Eraser Co., Inc.	SCINTISTAND Reed-Curtis Nuclear Industries, Inc.	SENSICON Motorola Inc.	F. W. SICKLES General Instrument Corp.
RUST-BAN Esso Standard Oil Co.	SCOTTIE Remler Company.	SENSITROL Weston Electrical Instrument Corp.	SICO Superior Instrument Co.
RX Instru-Lec Corp.	SMATCO Stone City Machine & Tool Co.	SENSITON Scientific Specialties Corp.	SICON Midland Industrial Finishes Corp.
RX Raytheon Mfg. Co.	SCOTCH Minnesota Mining & Mfg. Co.	SENSITRON Weston Electrical Instrument Corp.	SIE Southwestern Industrial Electronics Co.
RX METER Boonton Radio Corp.	SCOTCHCAST Minnesota Mining & Mfg. Co.	SENSORY Sturtevant Co., P. A.	S.I.E.C.O. Southwestern Industrial Electronics Co.
RX TIMER Lerner Plastics, Inc.	SCOTCH KOTE Minnesota Mining & Mfg. Co.	SEN TER CEL Standard Telephones & Cables, Ltd.	S.I.E.C.O. Sherman Industrial Electronics Co.
RYCOM Railway Communications, Inc.	SCOTCHLOK Minnesota Mining & Mfg. Co.	SENTERLET Standard Telephones & Cables, Ltd.	SIERRALITE Sierra Electric Corp.
	SCOTTIE Remler Co., Ltd.	SENTINEL Ingraham Co., E., Bristol, Conn.	SIERRAPLEX Sierra Electric Corp.
			SIGHT METER Weston Electrical Instrument Co.

SIGNA FLO Luffalo Electronics Corp.	S. K. S. Paisley Products, Inc.	SOLITAIRE Videon Electronic Corp.	SPECTROPHOTOMETER Central Scientific Co.
SIGNA-GLOW Industrial Development Labs., Inc.	SKY-CASTER Hy-Lite Antennae Inc.	SOL-REX Herzog Miniature Lamp Works, Inc.	SPECTROPHOTOMETER Perkin-Elmer Corporation, The
SIGNALATOR Kay Electric Co.	SKY CHAMPION Hallcrafters Co.	SOLU-BRIDGE Industrial Instruments, Inc.	SPECTRUM Fretco Inc.
SIGNALINER Feiler Engineering & Mfg. Co.	SKYCHIEF Camburn, Inc.	SONACTOR Kay Electric Co.	SPEECHMASTER Jensen Mfg. Co.
SIGNAL SENTRY Johnson Co., E. F.	SKYCHIEF Hallcrafters Co.	SONAFONE Sonar Radio Corp.	SPEED Speedway Mfg. Co.
SIGNAL-SPLITTER McLaughlin Corp., J. L. A.	SKYFONE Hallcrafters Co.	SONAGRAM PAPER Kay Electric Co.	SPEED-CHASSIS Specific Products
SIGNA-MATCHER Centralab Div. of Globe Union, Inc.	SKYGUIDE Philco Corp.	SONA-GRAPH Kay Electric Co.	SPEED CLAMPS Tinnerman Products Inc.
SIGNATURE Lansing Sound, Inc., James B.	SKY-KING J. F. D. Mfg. Co., Inc.	SONALATOR Kay Electric Co.	SPEED CLIPS Tinnerman Products Inc.
SILANEAL Dow Corning Corp.	SKY-LOK J. F. D. Mfg. Co., Inc.	SONARMETER Raytheon Mfg. Co.	SPEEDCRAFT Wire Stripper Co.
SILASTIC Dow Corning Corp.	SKYMASTER Communication Products Co., Inc.	SONA-STRETCHER Kay Electric Co.	SPEE-DEE Peck & Harvey Mfg. Corp.
SILBESTOS Electro-Technical Products Div. of Sun Chemical Corp.	SKYPLY Skydyne, Inc.	SONA-SWEEP Kay Electric Co.	SPEE-DEE Radiart Corp.
SIL BOND United Wire & Supply Corp.	SKY RANGER Hallcrafters Co.	SONAX Electro-Voice, Inc.	SPEEDEX General Cement Mfg. Co.
SILCAD Yardney Electric Corp.	SKY-STREAK J. F. D. Mfg. Co., Inc.	SONISCAN Television Equipment Corp.	SPEED GRIPS Tinnerman Products, Inc.
SILCLOTH Jensen Industries, Inc.	SKY-TOP J. F. D. Mfg. Co., Inc.	SONITE Smooth-On Mfg. Co.	SPEED IRON Weller Mfg. Co.
SILCOBEST Silicone Insulation, Inc.	SKY TRAK Radio Merchandise Sales, Inc.	SONOBOND Aeroprojects Incorporated	SPEEDMASTER Peck & Harvey Mfg. Corp.
SILECTRON Arnold Engineering Co.	SKY-WEIGHT Continental Electronics, Ltd.	SONOBRAZE Aeroprojects, Incorporated.	SPEED NUTS Tinnerman Products Inc.
SILENTBLOC General Tire & Rubber Co., The	S. L. Mallinckrodt Chemical Works.	SONOCLE Sonotone Corp.	SPEEDOMAX Leeds & Northrup Co.
SILENT SENTINEL Westinghouse Electric Corp.	SLENDYNE Shure Brothers, Inc.	SONODYNE Shure Brothers, Inc.	SPEEDSORT Associated Research, Inc.
SILERTEX Erie Resistor Corp.	SLIDEHOM Aerovox Corp.	SONOGEN Branson Ultrasonic Corp.	SPEED TOOLS Speedway Mfg. Co.
SIL-FLUX United Wire & Supply Corp.	SLIDERITE Grant Pulley & Hardware Corp.	SONOLASTIC Sonneborn Sons, Inc., L.	SPEED-X Johnson Co., E. F.
SILICOHM Dale Products, Inc.	SLIMAIR Electro-Voice, Inc.	SONO-PAD Sonotone Corp.	SPEEDY-CAL North Shore Nameplate Inc.
SILICOHM Sage Electronics Corp.	SLIM-TRIM Electro-Voice, Inc.	SONO-PROBE Advance Electronics, Inc.	SPEEDY-MARK North Shore Nameplate Inc.
SILIC-O-NETIC Heinemann Electric Co.	SLIM-X Shure Brothers, Inc.	SONORAY Branson Instruments, Inc.	SPEKALUMINITE Special Chemicals Co.
SILCORO Western Gold & Platinum Co.	SLIPSYN Westinghouse Electric Corp.	SONOTONOR Sonotone Corp.	SPEKLEEN Special Chemicals Co.
SILCONDUCTORS National Semiconductor Products Div. of Hoffman Electronics Corp.	SLIP-SYNC Chadwick Helmuth Co.	SONOWEAR Sonotone Corp.	SPEKWITE Special Chemicals Co.
SILFLEX Varflex Corp.	SLO-BLO Littelfuse, Inc.	SONOWELD Aeroprojects, Incorporated.	SPEKYELLO Special Chemicals Co.
SIL-FOS Handy & Harman	SLUG RETRIEVERS Hunter Tool Co.	SOUND-ABSORB Bill Jack Scientific Instrument Co.	SPENCER American Optical Co.
SILKENITE Acme Wire Co.	SMC St. Marys Carbon Co.	SOUND CELL Brush Electronics Co.	SPHEREX Electro-Voice, Inc.
SILON Pacific Moulded Products	SMALL UNIDYNE Shure Brothers, Inc.	SOUNDCRAFT Reeves Soundcraft Corp.	SPINCO Beckman Instruments, Inc.
SIL-THIN-BESTOS Electro Technical Products Div. of Sun Chemical Corp.	SMART SET Calbest Engineering & Electronics Co.	SOUND ISOLATION BLANKET Johns-Manville	SPIN-HEX Vaco Products Co.
SIL-THIN-GLASS Electro Technical Products Div. of Sun Chemical Corp.	SMITH-NATHANIEL BALDWIN Consolidated Radio Products Co.	SOUNDMIRROR Brush Electronics Co.	SPINLAB Special Instruments Laboratory, Inc.
SILTUBE All-State Welding Alloys Co., Inc.	SMOG-FREE Radex Corp.	SOUNDREEL Simpson Mfg. Co., Inc., Mark	SPIN-LOCK Russell, Burdall & Ward Bolt & Nut Co.
SILVALOY American Platinum Works	SMOKE-EYE Standard Instrument Corp.	SOUNDS OF OUR TIMES Cook Laboratories	SPIN-PIN Bruno-New York Industries Corp.
SILVALOY Linde Air Products Co.	SMOKGAGE Ess Specialty Corp.	SOUNDTRAP Miles Reproducer Co., Inc.	SPINTITE Stevens-Walden Inc.
SILVER ARROW Unit of Union Carbide & Carbon Corp.	SMUTBATH Special Chemicals Co.	SOUND-ZORBER Finn & Co., Inc., T. R.	SPIRACITOR Permutit Co.
SILVERCEL Yardney Electric Corp.	SNAP-ACTION Buchanan Electrical Products Corp.	SOUTHCASE Minnesota Mining & Mfg. Co.	SPIRAL Dzuz Fastener Co., Inc.
SILVERCOTE Little Falls Alloys, Inc.	SNAPIT Cable Electric Products, Inc.	SOUTHCASE South Chester Corp.	SPIRAL Phelps Dodge Copper Products Co.
SILVERLINE General Instrument Corp.	SNAP-LOC Gorn Electric Co., Inc.	SPACELINE Rego Insulated Wire Co.	SPIRALENE Surprenant Mfg. Co.
SILVERSTAT Westinghouse Electric Corp.	SNAP-LOCK Lerco Electronics, Inc.	SPANISH PRISON Barnstead Still & Sterilizer Co., Inc.	SPIRALINE Rego Insulated Wire Co.
SILVERTEX Erie Resistor Corp.	SNAP-LOCK National Acme Co.	SPARK ADVANCE Photocon Research Products	SPIRALON Surprenant Mfg. Co.
SILVER WAND Peerless Products Industries	SNAPPER Mueller Electric Co.	SPARK PROTRACTOR Photocon Research Products	SPIRALPOT Giannini & Co., Inc., G. M.
SILVREX Sel-Rex Corp., Precious Metals Div.	SNAPPER Thermal-Devices Div. of Curtiss-Wright Corp.	SPAULDITE Spaulding Fibre Co., Inc.	SPIRAL TUBING Continental-Diamond Fibre Co.
SIMPAC Westinghouse Electric Corp.	SNAP RINGS Eaton Mfg. Co.	SPAULDO Spaulding Fibre Co., Inc.	SPIRAMEG Sprague Electric Co.
SIMPLATROL Hobbs Mfg. Co.	SNAP-TITE Centralab Div. of Globe-Union, Inc.	SPECIAL Precision Radiation Instruments, Inc.	SPIRASHIELD Muter Co.
SIMPLEX Wenco Mfg. Co.	SNIFFER Johnson-Williams, Ltd.	SPECIAL SERIES United Transformer Co.	SPIROTALLIC Johns-Manville
SIMPLI-FLEX Radiart Corp., The	SNIPPER Johnson-Williams, Ltd.	SPECO Pfanstiehl Chemical Co.	SPLAC Westline Products Div. of Western Lithograph Co.
SIMPLYTROL Assembly Products, Inc.	SNOOPER Precision Radiation Instruments, Inc.	SPECO Special Products Co.	SPLICE CAP Buchanan Electrical Products Corp.
SINCOMAX Murex, Ltd.	SNORKEL Radion Corp.	SPECORAK Special Chemicals Co.	SPONGEX B. F. Goodrich Sponge Products. Div. of B. F. Goodrich Co.
SIoux Sangamo Electric Co.	SNS Special Products Co.	SPECPLATER Special Chemicals Co.	SPORTSMAN Marathon Battery Co.
SISCO Scientific Instruments Service Co.	SNUPEC Centralab Div. of Globe Union, Inc.	SPEC-POWER National Spectrographic Labs., Inc.	SPOT-LITE Canadian Radium & Uranium Corp.
649 Bentley-Harris Mfg. Co.	SODEREZE Phelps Dodge Copper Products Co.	SPECTABLE Special Chemicals Co.	SPOT-O-GRAPH Audio-Master Corp.
SIXTY Shure Brothers	SOLARSCOPE Solartron Electronic Group, Ltd., The	SPECTAPHONE Sonotone Corp.	SPRACO Sprague Electric Co.
60 LINE G-C Electronics Mfg. Co., Div. of G-C Textron, Inc.	SOLAVOLT Sola Electric Co.	SPECTRACORD Warren Electronics, Inc.	SPRAINT Waldom Electronics Inc.
SKAN G-M Laboratories	SOLDALOT Mallory & Co., Inc., P. R.	SPECTRA-TANK Organic Development Corp.	SPRAY Paisley Products Inc.
SKL Spencer-Kennedy Labs., Inc.	SOLDALOT Mallory & Co., Inc., P. R.	SPECTRA-STRIP Organic Development Corp.	SPHERETROL Cook Electric Co.
	SOLDERFORMS Kester Solder Co.	SPECTRIFIER Special Chemicals Co.	SPRING-LIFE Cook Electric Co.
	SOLDER MASTER Hexacon Electric Co.	SPECTROGAMMEOMETER Radiation Counter Laboratories, Inc.	SPRING-LOCK Simmons Fastener Corp.
	SOLDERLITE Weller Mfg. Co.	SPECTROMET Balrd-Atomic, Inc.	
	SOLDERSEAL General Ceramics Corp.	SPECTROMETER Perkin-Elmer Corporation, The	

- SPRING-O-MATIC**
Industrial Electrical Works
- SPRINGTITES**
Eaton Mfg. Co.
- SQUARE-OHM**
Workman TV, Inc.
- SQUARE-OHM**
Bradford Components, Inc.
- SQUAREX**
Kennedy & Co., D. S.
- SQUEEZE-LOCK**
Buchanan Electrical Products Corp.
- SR**
Shallite, Inc.
- SRC**
British Radio Electronics, Ltd.
- SRHT**
Boston Insulated Wire & Cable Co.
- S. R. P.**
Sonneborn Sons, Inc., L.
- STABELEX**
Industrial Condenser Corp.
- STABIFLO**
Foxboro Co.
- STABILINE**
Superior Electric Co.
- STABILOG**
Foxboro Co.
- STABILOVOLT**
Marconi's Wireless Telegraph Co., Ltd.
- STABLVIS**
Fischer & Porter Co.
- STABLVOLT**
Magnetic Research Corp.
- STACKOHM**
Sprague Electric Co.
- STACO**
Standard Electrical Products Co.
- STA-KON**
Thomas & Betts Co.
- STANCOR**
Chicago Standard Transformer Corp.
- STANDARD**
New York Solder Co.
- STANDARD**
Precision Radiation Instruments, Inc.
- STANDARD**
Shure Bros. Inc.
- STANDARD ARROW**
Bludworth Marine Div.,
Kearfott Co., Inc.
- STANDARD BINNACLE**
Bludworth Marine Div.,
Kearfott Co., Inc.
- STANDARD-ROYAL**
Standard Electric Time Co.
- STANDARD SIX**
Bludworth Marine Div.,
Kearfott Co., Inc.
- STANDATROL**
Bailey Meter Co.
- STANDCO**
Sticht Co., Inc., Herman H.
- STANDOE**
Clarostat Mfg. Co., Inc.
- STANDLAC**
Standard-Toch Chemicals, Inc.
- STANDOHM**
Model Engineering & Mfg. Inc.
- STANELCO**
Standard Telephones & Cables Ltd.
- STANEON**
General Cable Corp.
- STAN-GARD**
JFD Mfg. Co., Inc.
- STANTEL**
Standard Telephones & Cables Ltd.
- STANOFRE**
Standard Telephones & Cables, Ltd.
- STANTELUM**
Standard Telephones & Cables, Ltd.
- STANTOX**
Standard-Toch Chemicals, Inc.
- STAN-TRAN**
Stanwyck Winding Co.
- STA-PUT**
Consolidated Wire & Associated Companies
- STAR**
Duotone Co., Inc.
- STAR COMPOUND**
Acme Wire Co.
- STAR-HELIX**
JFD Mfg. Co., Inc.
- STAR-LOK**
Boots Aircraft Nut Corp.
- STATIFLUX**
Magnaflex Corp.
- STATION MASTER**
Communication Products Co., Inc.
- STAT-O-SEAL**
Wolfe Co., Franklin, Div. of the
Parker Appliance Co.
- STAT-TRAN**
Pulse Engineering, Inc.
- STAVOLT**
Christie Electric Corp.
- STBIL-THERM**
Blue M Electric Co.
- STEACON**
United Condenser Corp.
- STEDIVOLT**
Kelk & Co., G. F.
- STEELAGE**
Corry Jamestown Mfg. Co.
- STEEL-SET**
Paisley Products, Inc.
- STEHEDCO**
Steel Heddle Mfg. Co.
- STEMAG**
Arnhold Ceramics, Inc.
- STEMCO**
Stevens Mfg. Co., Inc.
- STENAFAX**
Times Facsimile Corp.
- STENTORIAN**
Standard-Hoch Chemicals, Inc.
- STEP PAK**
Bogen Co., Inc., David.
- STEP-SERVO**
Bergen Laboratories
- STEREO-MAGNEMITE**
Amplifier Corp. of America
- STERILAMP**
Westinghouse Electric Corp.
- STERILZONE**
Dallons Labs.
- STERLINE**
Cossor (Canada) Ltd.
- STERLING CABLES**
Beam Instruments Corp.
- STERLING CABLES**
Cossor (Canada) Ltd.
- STETHETRON**
Maico Co., Inc.
- STEWVOX**
Berlant Associates
- STIBNALON**
Green Rectifier Co.
- STIKON**
Ruge-De Forest, Inc.
- STILBEST**
Linick Chemical Co.
- STIMSONITE**
A'G'A' Division of Elastic Stop Nut
Corp. of America
- STM-PLY-TROL**
Assembly Products, Inc.
- STOCKRATOR**
Fischer & Porter Co.
- STORAWAY**
Birdair Structures, Inc.
- STOKATIMER**
Mercol Corp.
- STOLLBERG**
Associated American Trading Division
- STONEHART**
Titeflex, Inc.
- STRAIN ANALYZER**
Brush Electronics Co.
- STRAINALYZER**
Electronic Tube Corp.
- STRAIN RELIEF GROMMETS**
Fastex Div. of Illinois Tool Works.
- STRAITFLO**
Hays Mfg. Co.
- S-TRAN**
General Instrument Corp.
- STRATE-LINE**
Pyle-National Co.
- STRATE-LINE**
Radiart Corp.
- STRATOGRAPH**
Panoramic Radio Products, Inc.
- STRAT-O-LITE**
Strat-O-Seal Mfg. Co.
- STRATOLLNET**
Shure Brothers
- STRATO-MATCHED**
Remler Co.
- STRATOPAX**
Cook Electric Co.
- STRATO RAY**
Fretco Inc.
- STRATOSCOPE**
Panoramic Radio Products, Inc.
- STRATOVISION**
Westinghouse Electric Corp.
- STREAMLINER**
Ozalid Div.
- STREAMLINER**
General Aniline & Film Corp.
- STREAMLINER**
Precision Scientific Co.
- STRING-A-LITE**
Joy Mfg. Co.
- STRIP-EASE**
Radix Wire Co.
- STRIPLINE**
Airborne Instruments Lab., Inc.
- STRIPMASTER**
Ideal Industries, Inc.
- STRIPOHM**
Ward Leonard Electric Co.
- STRIPSOL**
Paisley Products, Inc.
- STRIP-SPRINGS**
Instrument Specialties Co., Inc.
- STROBEACON**
Kemlite Laboratories.
- STROBE-DRIVER**
Chadwick Helmuth Co.
- STROBE-MAT**
CBC Electronics Co., Inc.
- STROBESECTOR**
Califone Corp.
- STROBOCONN**
Conn. Ltd., C. G.
- STROBODYNE**
Sperry Gyroscope Co. Div. of
The Sperry Corp.
- STROBOFLASH**
General Radio Co.
- STROBO-LITE**
Wilcox Research Co.
- STROBOLUX**
General Radio Co.
- STROBONAR**
Helland Div. of Minneapolis-Honeywell
Regulator Co.
- STROBO-SYNC**
Winkler Laboratories
- STROBOTAC**
General Radio Co.
- STROBOTUNER**
Conn. Ltd., C. G.
- STRUX**
du Pont de Nemours & Co., Inc., E. I.
- STUPALITH**
Stupakoff, Div. of The Carborundum Co.
- STURDIBOLT**
Stronghold Screw Products, Inc.
- STURTEVANT**
Westinghouse Electric Corp.
- STYCAST**
Emerson & Cuming, Inc.
- STYMER**
Monsanto Chemical Co.
- STYRACON**
Sprague Electric Co.
- STYRALOY**
Dow Chemical Co.
- STYRAMIC**
Monsanto Chemical Co.
- STYROFLEX**
Natvar Corp.
- STYROFLEX**
Phelps Dodge Copper Products Co.
- STYROFOAM**
Dow Chemical Co.
- STYRON**
Dow Chemical Co.
- STYROPHANE**
Standard-Toch Chemicals, Inc.
- SUBMINAX**
Amphenol Electronics Corp.
- SUB-MINI-SHIELD**
Staver Co., Inc.
- SUBOWNER**
United Transformer Corporation.
- SUBURBAN**
Radion Corp.
- SUNSWITCH**
Ripley Co., Inc.
- SUPER**
Union Electric & Mfg. Co.
- SUPER**
Precision Radiation Instruments, Inc.
- SUPER AUTOBOOSTER**
Industrial Television, Inc.
- SUPER B**
Ozalid Div.,
General Aniline & Film Corp.
- SUPER-BEAM**
JFD Mfg. Co., Inc.
- SUPER-BECKACITE**
Reichhold Chemicals, Inc.
- SUPER-CAP**
United Electronic Mfg. Corp.
- SUPER 'CEPTER**
Wells & Winegard
- SUPER DAVOHH**
Daven Co.
- SUPER DODO**
JFD Mfg. Co., Inc.
- SUPER-DYLAN**
Koppers Co., Inc.
- SUPEREX**
Johns-Manville
- SUPER EX.**
Telrex Inc.
- SUPERFAN**
Channel Master Co.
- SUPERFLAKE**
Superior Graphite Co.
- SUPERKIT**
Superex Electronics Corp.
- SUPER MARKER**
Scala Radio Co.
- SUPER POWER-HELIX**
JFD Mfg. Co., Inc.
- SUPER POWERJET**
JFD Mfg. Co., Inc.
- SUPER ROYAL**
Permoflux Corp.
- SUPERSERVICE**
General Cable Corp.
- SUPERSHEATH**
General Cable Corp.
- SUPER STAR-HELIX**
JFD Mfg. Co., Inc.
- SUPERIOR**
Eagle Electric Mfg. Co., Inc.
- SUPERIOR**
Radiart Corp.
- SUPERIOR**
Wall Mfg. Co.
- SUPERJET**
J F D Mfg. Co., Inc.
- SUPERMALLOW**
Arnold Engineering Co.
- SUPERMIX**
X-Ray Dept. of General Electric Co.
- SUPER PRO**
Hammarlund Mfg. Co.
- SUPERSEC**
U. S. Rubber Co.
- SUPERSHEATH**
General Cable Corp.
- SUPERSONIC**
Dzus Fastener Co., Inc.
- SUPERSONIC REFLECTOSCOPE**
Sperry Products Inc.
- SUPER SPECTROM**
Fretco, Inc.
- SUPER-STRUCTURE**
Radiart Corp.
- SUPERTEL**
General Cable Corp.
- SUPER-TEM**
American Super-Temperature Wires, Inc.
- SUPER TENNA**
Tennalab
- SUPERTESTER**
California Technical Industries,
- SUPER TRACER**
Precision Electronics
- SUPERTROL**
Control Corp.
- SUPERTUF**
General Cable Corp.
- SUPERVAC**
Central Scientific Co.
- SUPER-X**
Telrex, Inc.
- SUPER VEE**
Radiart Corp., The
- SUPERWRAP**
Marvillum Co.
- SUPRAMICA**
Mycalex Corp. of America
- SU-PR-CIRCUITS**
Cleveland Metal Specialties Co.
- SUPREME**
Grant Pulley & Hardware Co.
- SUPRO**
Valco Mfg. Co.
- SURCO**
Surprenant Mfg. Co.
- SURFINDICATOR**
Brush Electronics Co.
- SURFLENE**
Surprenant Mfg. Co.
- SURFLEX**
Surprenant Mfg. Co.
- SURFLON**
Surprenant Mfg. Co.
- SURGELITE**
Kemlite Laboratories.
- SURGYTHERM, JR.**
Wappler, Inc.
- SWEATLESS**
Paisley Products Inc.
- SWEEPALATOR**
Decade Instrument Co.
- SWEEFMASTER**
Manufacturers Engineering &
Equipment Co.
- SWEEP-SYNC**
Chadwick Helmuth Co.
- SWELTERPROOF**
Roanwell Corp.
- SWIFTOL**
Southwest Products, Inc.
- SWING-OVER**
Tel-A-Ray Enterprises, Inc.
- SWING-WA**
Trumbull Dept. of General Electric Co.
- SWITCH-LITE**
Littelfuse, Inc.
- SWITCHMAT**
Recora Co.
- SWIVEL BEAM**
Radio Merchandise Sales, Inc.
- SWIVEL BOW**
Radio Merchandise Sales, Inc.
- SWIVLTOP**
Moody Machine Products Co., Inc.
- SYLKDY**
Dow Corning Corp.
- SYLPHON**
Fulton Sylphon Div.,
Robertshaw-Fulton Controls Co.
- SYLVALOY**
Driver Co., Wilbur B.
- SYMBOSTAMP**
Griffin Co., John
- SYMPHONY MASTER**
Monitor Products Co.
- SYNASET**
Telrex, Inc.
- SYNCHRO-METER**
Bailey Meter Co.
- SYNCHRON**
Hansen Mfg. Co., Inc.
- SYNCHROSTAT**
Electric Regulator Corp.
- SYNCHROTROL**
Westinghouse Electric Corp.
- SYNCHRO-TUNER**
Cavinton Electron Oscillator Co. Div of
Short Wave Plastic Forming Co.
- SYNCHRO-VALVE**
Bristol Co., The
- SYNCHROVERTER**
Bristol Co., The
- SYNCGEARS**
U. S. Electrical Motors, Inc.
- SYNCHROGEN**
Amplitrax Inc.
- SYNCROLL DRIVE**
Fairchild Recording Equipment Co.
- SYNCRIO-MARKER**
Electro Products Labs.
- SYNCHROMOUNT**
Giannini & Co., Inc., G. M.
- SYNCHROPLEX**
Television Equipment Corp.
- SYNCHROPRINTER**
Analex Corporation

SYNCRON
Dormitzer Electric & Mfg. Co., Inc.

SYNKOTE
Plastoid Corp.

SYNRUB
U. S. Rubber Co.

SYNTHAMICA
Mycalex Corp. of America.

SYNTHETIZER
Collins Radio Co.

SYNTHINOL
Consolidated Wire & Associated Companies

SYNTHOGRAPHIC
Synthane Corp.

SYNTHOLVAR
Varflex Corp.

260
Simpson Electric Co., Div., American Gage & Machine Co.

TA
Instrument Cases Div. of Ta Mfg. Corp.,

TA
Thomas Associates

TG
Leitch Engineering Corp.

T-K
Tuttle & Kift

T/PLOTTER
Barry Controls, Inc.

TABBY
Division Lead Co.

TABLITE
Technical Apparatus Builders.

TABPAK
Technical Apparatus Builders.

TABTRAN
Technical Apparatus Builders.

TABTRON
Technical Apparatus Builders

TACO
Technical Appliance Corp.

TACOPLEX
Technical Appliance Corp.

TADANAC BRAND
Cominco, Metal Sales Div.

TAG
Weston Electrical Instruments Corp.

TAKCAL
Howell Instrument Co.

TAKK-TRON
Takk Corp.

TALKMASTER
Dalmotron Co.

TANGLEPROOF
Hobbs Mfg. Co.

TANNOY
Beam Instruments Corp.

TAN-O-MITE
Ohmite Mfg. Co.

TANTALEX
Sprague Electric Co.

TAP
Continental Screw Co.

TAPAK
Broadcast Equipment Specialties Corp.

TAP LITE
Minneapolis-Honeywell Regulator Co.

TAP-LOK
Groov-Pin Corp.

TAPE-MINDER
Cycle Equipment Co.

TAPE-O-GRAPH
Audio Industries

TAPE-O-MATIC
V-M Corp.

TAPE RECORDER
Ampex Corp.

TAPESONIC
Premier Electronic Laboratories.

TAPER-TONE
Acton Co., H. W.

TAPE TITE
Paisley Products, Inc.

TAPOT
Howell Instrument Co.

TARRYTRON
Cook Electric Co.

TATTELITE
Sittler Corp.

TAUBOLT
Hudson American Corp.

TAUTORK
Precision Paper Tube Co.

TCA
Thermistor Corp. of America

T.C.C.
Telegraph Condenser Co., Ltd.

TCC
Transistor Components Co.

TC-2
Continental Communications, Inc.

TCW
Tronic Coil Winding Co., Inc.

TEC
Television Equipment Corp.

TECHNILOG
University Loudspeakers, Inc.

TECHNILOY
Technic, Inc.

TECH-TIMER
Technic, Inc.

TECH-TIN
Technic, Inc.

TECO
Torrance Glass & Color Works.

TEECO
Trutone Electronics, Inc.

TEE-NUTS
United-Carr Fastener Corp.

TEFAP
Union Plastics Corp.

TEFIFON
Audio-Master Corp.

TEFLACE
Gudebrod Bros. Silk Co., Inc., Electronics Div.

TEFLEX
Boston Insulated Wire & Cable Co.

TEFLITE
Boston Insulated Wire & Cable Co.

TEFLON
du Pont de Nemours & Co., Inc., E. I.

TEFSILON
Boston Insulated Wire & Cable Co.

T.E.I.
Thomas Electronics, Inc.

TEKAP
Technical Apparatus Builders.

TEKLITE
Technical Apparatus Builders.

TEKNI
Walsco Electronics Corp.

TEK REG
Technical Apparatus Builders.

TEKSEL
Technical Apparatus Builders.

TEKSIL
Technical Apparatus Builders.

TEKTOLOG
Fielden Instrument Div., Robertshaw-Fulton Controls Co.

TEKTOR
Fielden Instrument Div., Robertshaw-Fulton Controls Co.

TEKTRAN
Technical Apparatus Builders.

TELACOL
Magnetic Core Corp.

TEL-A-COR
Magnetic Core Corp.

TELA-EAR
Telex, Inc.

TELAIRATOR
Fischer & Porter Co.

TELAMP
Miles Reproducer Co., Inc.

TELCO
General Cement Mfg. Co.

TELCOARC
Western Union Telegraph Co.

TEL-A-PIPE
Westline Products Div. of Western Lithograph Co.

TELE-ATTEN
Vidaire Electronics Mfg. Co.

TELEBOOSTER
Television Equipment Corp.

TELECABLE
Whitney Blake Co.

TELECAP
Sprague Electric Co.

TELECONTROL
Teletronic Laboratories, Inc.

TELECORD
Dictaphone Corp.

TELECORD
Whitney Blake Co.

TELECORD SYSTEM
Dictaphone Corp.

TELECODER
Telecomputing Corp.

TELECORDEX
Telecomputing Corp.

TELECOUPLER
Television Equipment Corp.

TELE-COUPLER
Vidaire Electronics Mfg. Co.

TELECUE
Telechrome Inc.

TELEDELLOS
Western Union Telegraph Co.

TELEDUCER
Telecomputing Corp.

TELEDUCT
Whitney Blake Co.

TELEFAX
Western Union Telegraph Co.

TELE-FI
Telex, Inc.

TELEFILTER
Kay Electric Co.

TELE-FLEX
Telrad Mfg. Corp.

TELEFRAME
Whitney Blake Co.

TELEFUNKEN
American Elite, Inc., (Telefunken)

TELEGLAS
Pittsburgh Plate Glass Co.

TELE-GUIDE
Telrad Mfg. Corp.

TELEHOME
Webster Electric Co.

TELEKRYPTON
Western Union Telegraph Co.

TELEMAGNET
Mohawk Business Machines Corp.

TELEMASTER
Television Equipment Corp.

TELEMETROSCOPE
Tobe Deutschmann Corp.

TELEMIKE
Miles Reproducer Co., Inc.

TELEPAGE
Webster Electric Co.

TELEPHOTO
Acme Telectronic Div. of NEA Service, Inc.

TELEPLATE
Whitney Blake Co.

TELE-PLEX
J F D Mfg. Co., Inc.

TELEPLOTTER
Telecomputing Corp.

TELEPOT
Paul & Stein Bros., Inc., F. H.

TELEPRENE
Whitney Blake Co.

TELEPULSE
Shand & Jurs Co., Sub. of General Precision Equipment Corp.

TELEREADER
Telecomputing Corp.

TELEREADDEX
Telecomputing Corp.

TELE-ROTOR
Radiant Corp.

TELESEAL
Whitney Blake Co.

TELESET
DuMont Laboratories, Inc., Allen B.

TELESET
Telex, Inc.

TELESONIC
U. S. Television Mfg. Corp.

TELESPATCH
Webster Electric Co.

TELESPEAKER
Telex, Inc.

TELESYMPHONIC
U. S. Television Mfg. Corp.

TELESYN
Ford Instrument Div., The Sperry Rand Corp.

TELETALK
Webster Electric Co.

TELETERM
Westinghouse Electric Corp.

TELE-THERMOMETER
Yellow Springs Instrument Co., Inc.

TELETORQUE
Kollman Instrument Corp.

TELE-TROL
Teletronic Laboratories, Inc.

TELETRONS
DuMont Laboratories, Inc.

TELE-TWIN
JFD Mfg. Co., Inc.

TELETUNER
Mallory & Co., Inc., P. R.

TELEVAC
Fredericks Co., Geo. E.

TELEVANES
Ward Products Corp., Div. The Gabriel Co.

TELEVERTER
James Vibrapowr Co.

TELE-VIDER
Electro-Voice, Inc.

TELEVOICE
Edison Inc., Thomas A.

TELEVOLT
Sola Electric Co.

TELE-VOLTER
Jackson Electrical Instrument Co.

TELEVOX
Westinghouse Electric Corp.

TEL-EYE
DuMont Laboratories, Inc., Allen B.

TELNIC
Chase Brass & Copper Co., Inc.

TEL-O-AID
Fisher Research Lab., Inc.

TEL-OHMIKE
Sprague Electric Co.

TELOJECTOR
Gray Research & Development Co., Inc.

TELOP
Gray Research & Development Co., Inc.

TEL-ROD
Television Laboratories, Inc.

TELSTOR
Field Instrument Div., Robertshaw-Fulton Controls Co.

TELVAC
Television Accessories Co.

TELVAR
Audar, Inc.

TEMFLEX
Irrington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co.

TEMP-ALARM
Tempil Corp.

TEMPALL
Tobe Deutschmann Corp.

TEMP COP
Micro Switch

TEMPERATURE COMPENSATOR "30"
Carpenter Steel Co., The

TEMPILAQ
Tempil Corp.

TEMPILSTIK
Tempil Corp.

TEMPPLUBE
National Engineering Products, Inc.

TEMPO
Clear Beam Television Antenna Co.

TEMPROBE
Victory Engineering Corp.

TEMPROOF
Lord Mfg. Co.

TEMPRUF
Chatillon & Sons, John,

TEMP-R-TAPES
Connecticut Hard Rubber Co.

TEMPSEAL
National Engineering Products, Inc.

TEMSTART
Synchro Start Products, Inc.

TENAROL
Rollan Electric Co.

TEN-FI
McGregor Electronic Industries.

TENNA-CLAMP
Mueller Electric Co.

TENNA CLIP
Industrial Television, Inc.

TENNA COUPLER
Industrial Television, Inc.

TENNAKITS
Tennalab

TENNA-PAK
JFD Mfg. Co., Inc.

TENNA-ROTOR
Alliance Mfg. Co.

TENNA-SCOPE
Alliance Mfg. Co.

TENNA-TIE
Channel Master Co.

TENNA-TOP
Electro-Voice, Inc.

TENNA-TUBE
Javex

TENNEYMITE
Tenney Engineering, Inc.

TENNEYZPHERE
Tenney Engineering, Inc.

TENSILOK
General Cable Corp.

TENSITE
Driver Co., Wilbur B.

TENSOLEX
Tensolite Insulated Wire Co., Inc.

TENSOLON
Tensolite Insulated Wire Co., Inc.

TENS-O-TROL
Dillon & Co., Inc., W. C.

TENSULATED
Tensolite Insulated Wire Co., Inc.

TEN-TENNA
Waldom Electronics Inc.

TERMALINE
Bird Electronic Corp.

TERMEND
Buchanan Electrical Products Corp.

TERMIN O SEAL
Wolfe Co., Inc., Franklin C.

TERVAN
Esso Standard Oil Co.

TESA
United Mineral & Chemical Corp.

TESAFLEX
United Mineral & Chemical Corp.

TESCO
Eastman Specialty Co.

TESTLITE-FUSPUL
Dante Electric Mfg. Co.

TEST MASTER
Precision Apparatus Co., Inc.

TEST-MIKE
Cornell-Dubilier Electric Corp.

TEST-MASTER
Precision Apparatus Co., Inc.

TETRAFILM
Shamban & Co., W. S.,

TETROC
Sprague Electric Co.

TEX-CAP
Texas Capacitor Co., Div. of K-C-K Corp.

TEXCEL
Permacel Tape Corp.

TEXLITE
United Mineral & Chemical Corp.

TEXTOLITE
General Electric Co.

THELCO
Precision Scientific Co.

ThERA-RAY
Edin Co., Inc.

THERATHERM
Marconi Instruments

THERLO
Driver-Harris Co.

THERMAL-CAL
North Shore Nameplate,

THERMA-FLEX
Cavitron Electron Oscillator Co. Div. of Short Wave Plastic Forming Co.

THERMALARM
Eastern Specialty Co.

THERMALEZE
Phelps Dodge Copper Products Corp.

THERM-A-NEERING
Westinghouse Electric Corp.

THERMATOOL
New Rochelle Tool Corp.

THERMATRON
Radio Receptor Co.

THERMAX
General Cable Corp.

THERMEX
Girdler Co., The,

THERMISTOL
Workman TV, Inc.

THERMOBESTOS
Johns-Manville.

THERMOCAP
Niagara Electron Laboratories

THERMO-COUSTI
Thompson Co., H. I.

THERMOCUBE
Radio Engineering Labs., Inc.

THERMO-FLEX
Woodwelding, Inc.

THERMO-GRIP
Ideal Industries, Inc.

THERMOGUARD
Westinghouse Electric Corp.

THERMOHM
Leeds & Northrup Co.

THERMO-HUMIDIGRAPH
Bristol Co., The

THERMOIL-GRANODINE
American Chemical Paint Co.

THERMO-JET
General Research & Supply Co.

THERMOLAIN
Star Porcelain Co.

THERMOLASTIC
Cox & Co., Inc.

THERMOLUGS
Burndy Corp.

THERMOMETAL
Wilson Co., The, H. A.

THERM-O-METER
Simpson Electric Co., Div. of
American Gage & Machine Co.

THER-MONIC
Induction Heating Corp.

THERMOPATCH
Cox & Co., Inc.

THERMOPLAX
Cutler-Hammer, Inc.

THERMOPRENE
Whitney Blake Co.

THERMOSEN
Sorensen & Co.

THERMOSHEET
Cox & Co., Inc.

THERMO-SNAP
Spencer Thermostat Div. Metals &
Controls Corp.

THERMOSTAT
Fenwal, Inc.

THERMOSWITCH
Fenwal, Inc.

THERMO-TIP
Ideal Industries, Inc.

THERM-OTROLS
Barber-Colman Co.

THERMOVERTER
Bristol Co., The

THERMOWIRE
Cox & Co., Inc.

THERMYSTAL
Knights Co., James, The

THERVEL
Avien, Inc.

THESAURUS
Radio Corp. of America

THINPLATES
Park Nameplate Co., Inc.

THINSLIDE
Grant Pulley & Hardware Corp.

3C-BLOC
Computer Control Co., Inc.

3C-PACS
Computer Control Co., Inc.

3D-DIMENSION
Fretco, Inc.

3100
Eberhard Faber Pencil Co.

3110
Eberhard Faber Pencil Co.

THRED-LOCK
Continental Screw Co.

3-IN-1
J F D Mfg. Co., Inc.

THREE-PHASE
Sclaky Bros., Inc.

THROTTLTROLS
Barber-Colman Co.

THRULINE
Bird Electronic Corp.

THRUPASS
Sprague Electric Co.

THRURAY
Sperry Products, Inc.

THUNDER BIRD
Telrex, Inc.

THYRA-LINE
Hanson-Gorrill-Brian, Inc.

THYRA-PULSE
Hanson-Gorrill-Brian, Inc.

THYRITE
General Electric Co.

TICO
Technical Instrument Co.

TI-CO
Thomas Instrument Co.

TIDLETRIK
American Lava Corp.

TIFFINY SPARKSHIELDS
Pearce-Simpson, Inc.

TIGER
American Steel & Wire Div.,
U. S. Steel Corp.

TI-MATIC
Westinghouse Electric Corp.

TIME AID
Paragon Electric Co.

TIME-ALL
International Register Co.

TIMEFAX
Times Facsimile Corp.

TIME-IT
Precision Scientific Co.

TIME-MASTER
Dictaphone Corp.

TIME-MINDER
International Register Co.

TIME-O-GRAF
Borg Equipment Div.,
George W. Borg Corp.

TIME-O-LITE
Industrial Timer Corp.

TIME-O-SWITCH
Minneapolis-Honeywell Regulator Co.

TIM-O-WELD
First Electronics Corp., The

TINOL
American Solder & Flux Co.

TINYFORMER
Gramer-Halldorson Transformer Corp.

TINY-GLOW
Industrial Devices, Inc.

TINYMAX
Torwico Electronics, Inc.

TINYMIKE
Cornell-Dubilier Electric Corp.

TINY TEN
Daystrom Pacific Corp.

TINYMITE
Renbrandt, Inc.

TINY TIM
Shure Brothers

TINYTRAN
Standard Transformer Corp.

TINY TRIM
Daystrom Pacific Corp.

TIOLEKTRIC
American Lava Corp.

TIPS
Electronic Products Co.

TIP-SWITCH
Gorn Electric Co., Inc.

TIP-TOP
General Cable Corp.

TIREX
Simplex Wire & Cable Co.

TITAN
Sonotone Corp.

TITE-BIND
Thomas & Betts Co.

TITEGRIP
Dante Electric Mfg. Co.

TITONE
Sonotone Corp.

TITRILOG
Consolidated Electrodynamics Corp.

TITRIMETER
Fisher Scientific Co.

TITROMETER
Precision Scientific Co.

TMC
Technical Materiel Corp.

T. W.
Paisley Products Int.

TOBE
Tobe Deutschmann Corp.

TOBEMITE
Tobe Deutschmann Corp.

TOCCO
Ohio Crankshaft Co.

TOCCOTROL
Ohio Crankshaft Co.

TOCCOTRON
Ohio Crankshaft Co.

TOM THUMB
Automatic Radio Mfg. Co., Inc.

TOMAHAWK
Sangamo Electric Co.

TOMAHAWK
Stevens-Walden, Inc.

TONETEX
Electro-Voice, Inc.

TONG TEST
Columbia Electric Mfg. Co.

TONG TEST
Martindale Electric Co.

TONOTRON
Hughes Products Division, Hughes
Aircraft Co.

TOP HAT
Times Facsimile Corp.

TOP-LAY
Metals & Controls Corp., General Plate
Div.

TOPHET
Driver Mfg. Co., Wilbur B.

TOPLINER
Technical Appliance Corp.

TOPPER
Camburn, Inc.

TOPPERS
Saxton Products Inc.

TOR-A-COR
Magnetic Amplifiers, Inc.

TORKMASTER
Tork Clock Co., Inc.

TORKOTHERM
Tork Clock Co.

TOROYD
Associated American Trading
Division

TOROYD
Universal Mfg. Co., Inc.

TORPOT
Electro-Mec Laboratory

TORQUE DRIVE
Electro-Voice, Inc.

TORQUE WATCH
Waters Mfg. Inc.

TORROTHERM
Torrance Glass & Color Works

TORSYN
Control Components Co.

TORSYNATOR
Air-Marine Motors, Inc.

TOUCH-TIMER
Kay Electric Co.

TR2 ROTOR
Radiart Corp.

TRACEMASTER
Stacor Equipment Co.

TRADIO
Trad Electronics Corp.

TRADIOPHONE
Trad Electronics Corp.

TRADIOVISION
Trad Electronics Corp.

TRADITION
Staedtler Inc., J. S.

TRADITION-CHROMA
Staedtler, Inc., J. S.

TRAFF-O-MATIC
Automatic Signal Div.,
Eastern Industries, Inc.

TRAILBLAZER
Channel Master Co.

TRAILBLAZER
Sangamo Electric Co.

TRAILER-TENNA
Clear Beam Television Antenna Co.

TRAIN EAR
Malco Co., Inc.

TRAK
C.G.S. Laboratories, Inc.

TRAMP
Ten Bosch, Inc., M.

TRAN-COR
Armco Steel Corp.

TRANSCAL
Transonic, Inc.

TRANCORS
Lenkurt Electric Co., Inc.

TRANOLSEAL
Johns-Manville

TRANSAC
Philco Corp.

TRANSCON
Creative Electronics Corp.

TRANS-DEX
Watson Mfg. Co., Inc.

TRANSEAL
Johnson Research Corp.

TRANS-TEL
Calbest Engineering & Electronics Co.

TRANSALYZER
Kay Electric Co.

TRANSALOID
Haloid Co., The

TRANSAMP
Electronic Research Associates, Inc.

TRANS-CITER
Multi-Products Co.

TRANSFAX
Eastman Kodak Co.

TRANSFILTER
Brush Electronics Co.

TRANSFLEX
Irvington Varnish & Insulator
Div. of Minnesota Mining & Mfg. Co.

TRANSHAILER
Pye Telecommunications Ltd.

TRANS-HORIZON
Kennedy & Co., D. S.

TRANSIDYNE
Nader Mfg. Co.

TRANSI-MAG
Magnetic Amplifiers, Inc.

TRANSI-PAK
Red Bank Div., Bendix Aviation Corp.

TRANSIST-EAR
Malco Co., Inc.

TRANSITE
Johns-Manville

TRANSITONE
Philco Corp.

TRANS-LITE
Plasteck, Inc.

TRANSLUCTANCE
Remler Co.

TRANSMAG
California Magnetic Control

TRANS-O-METER
Westinghouse Electric Corp.

TRANSPAC
Electronic Research Associates, Inc.

TRANSPEC
California Magnetic Control

TRANS-PIX
Kay Electric Co.

TRANSTAT
Standard Electronics Corp.

TRANSVERTER
Hertner Electric Co.

TRAPPER
Technical Appliance Corp.

TRAV-ELECTRIC
Terado Co.

TRAVELLER
JFD Mfg. Co., Inc.

TRAVERTONE
Armstrong Cork Co.

TR CO
Richardson Co., The

TREADMASTER
Rubber & Asbestos Corp.

TREEPLEX
Rome Cable Corp.

TRELCO
Transitron Electronic Corp.

TRENCHLAY
General Cable Corp.

TRENTWELD
Crucible Steel Co. of America

TRENTWELD
Trent Tube Co.

TREPAC
Elcor Electronics Corp.

TRIAD
Lifton Industries

TRIAKON
Sieler Design Products

TRIAKIAL
Jensen Mfg. Co.

TRI-BAND
Telrex, Inc.

TRI-FLAT
Fischer & Porter Co.

TRI-CORE
Alpha Metals, Inc.

TRIFLUX
Redmond Co., Inc.

TRIG
Rostan Corp.

TRIG-R-HEAT
Wall Mfg. Co.

TRI-IND-X
Triplet & Barton, Inc.

TRI-LOK
Boots Aircraft Nut Corp.

TRIMOUNTS
United-Carr Fastener Corp.

TRIMR
Bourns Laboratories

TRIM TROL
Airborne Accessories, Inc.

TRIMPOT
Bourns Laboratories, Inc.

TRIMTHERM
General Controls Co.

TRI-NON
Perkin-Elmer Corporation, The

TRINSEEL
Tri-Point Plastics, Inc.

TRI-O-MATIC
V-M Corp.

TRIONODE
Walkirt Co.

TRIONIZED AIR
Trion, Inc.

TRI-O-SPEED
V-M Corp.

TRI-PLATE
Sanders Associates, Inc.

TRIPLAX
Plax Corp.

TRIPLCHEK
Fox Products Co.

TRIPLE-TIE
Channel Master Co.

TRIPLEX
Jensen Mfg. Co.

TRIPLOC
Pyle-National Co.

TRI-SNAP
Westinghouse Electric Corp.

TROJAN
Hexacon Electric Co.

TROMBONE
Ward Products Corp.,
Div. The Gabriel Co.

TRONEX
Wheaton Co., T. C., Electronic Div.

TRUARC
Waldes Kohinoor Inc.

TRUE-BRAND
Carbonneau Industries, Inc.

TRU-COPY-PHOTE
General Photo Products Co., Inc.

TRU-FLANGE
American Brass Co.

TRUFLEX
Metals & Controls Corp.,
General Plate Division

TRU-FLEX
Peerless Photo Products, Inc.

TRU-GRAF
Peerless Photo Products, Inc.

TRU-GROUND
Allen Mfg. Co.

TRU-GUIDE
Model Engineering & Mfg., Inc.

TRU-LAY
American Chain & Cable Co., Inc.

TRU-LOC
American Chain & Cable Co., Inc.

TRULUME
Reeves Soundcraft Corp.

TRU-MATCH
Quam Nichols Co.

TRU-OHM
Model Engrg. & Mfg. Co.

TRU-PASS
Sprague Electric Co.

TRU-RIB
Model Engineering & Mfg., Inc.

TRU-ROUND
Allen Mfg. Co.

TRUSCON
Republic Steel Corp.

- TRUSHADE**
Technic, Inc.
- TRU-SONIC**
Stephens Mfg. Corp.
- TRUSPEC**
Scovill Mfg. Co.
- TRU-TORK**
Resinite Corp., Sub. of
Precision Paper Tube Co.
- TRU-VAC**
Continental Electric Co.
- TRYLON**
Wind Turbine Co.
- TSI**
Tri-Point Plastics, Inc.
- TUBE-MASTER**
Precision Apparatus Co., Inc.
- TUBE-R-CAP**
Centralab Div. of Globe-Union, Inc.
- TUBE-U-LAR**
Pyramid Electric Co.
- TUCK**
Technical Tape Corp.
- TUCK-AWAY**
J F D Mfg. Co., Inc.
- TUFFERNELL**
Westinghouse Electric Corp.
- TUFFY**
Insulation Manufacturers Corp.
- TUFF TUBE**
Lamtex Industries, Inc.
- TUFLEC**
Laminated Plastics Inc.
- TUF-ON**
Brooklyn Paint & Varnish Co., Inc.
- TUNE-O-MATIC**
Electro-Voice, Inc.
- TUNE-O-MATIC**
J. F. D. Mfg. Co., Inc.
- TUNE TAPE**
Miller Electronics
- TUNERCLEAN**
Walsco Electronics Corp.
- TURBO**
Brand & Co., Inc., William
- TURBOGLAS**
Brand & Co., Inc., William
- TURBOLAC**
Brand & Co., Inc., William
- TURBOLENE**
Brand & Co., Inc., William
- TURBOLEX**
Brand & Co., Inc., William
- TURBOSIL**
Brand & Co., Inc., William
- TURBO PRENE**
Brand & Co., Inc., William
- TURBO 117**
Brand & Co., Inc., William
- TURBOTEMP**
Brand & Co., Inc., William
- TURBOTHERM**
Brand & Co., Inc., William
- TURBOTRANS**
Brand & Co., Inc., William
- TURBOTUF**
Brand & Co., Inc., William
- TURBO TUFFLEX**
Brand & Co., Inc., William
- TURBOZONE**
Brand & Co., Inc., William
- TURQUOISE**
Eagle Pencil Co.
- TV DUETTE**
Jensen Mfg. Co.
- WEEZER WELD**
Federal Tool Engineering Co.
- 23 CLIPPER**
Centralab Div. of
Globe-Union, Inc.
- TWILT**
Electro-Voice, Inc.
- TWIN BLOK**
United Mfg. & Service Co.
- TWIN FAST**
Blake & Johnson Co.
- TWIN-LEVER**
Shure Brothers, Inc.
- TWINPOT**
Bourne Laboratories
- TWIN-SCREEN HI-LITE**
DuMont Laboratories, Inc., Allen B.
- TWINTACTS**
Weston Electrical Instrument Co.
- TWIN-300**
Microlab
- TWIN-TRAX**
Amplifier Corp. of America
- TWIN-TILT**
Electro-Voice, Inc.
- TWINKLER**
Television Accessories Co.
- TWINKORD**
Ansonia Wire & Cable Co.
- TWINSET**
Telex, Inc.
- TWINSULATION**
U. S. Rubber Co.
- TWIN-V**
Motorola Communications & Electronics,
Inc.
- TWIN-VISO**
Sanborn Co.
- TWISTAGUIDE**
Alitron, Inc.
- TWIST-LOCK**
Harvey-Hubbell, Inc.
- TWIST-LOK**
Sprague Electric Co.
- TWIST-MOUNT**
Pyramid Electric Co.
- TWIST-TITE**
Harvey Hubbell, Inc.
- TWOFOLD**
Mitchell Industries, Inc.
- TWO-TIMER**
Bristol Motor Div.
Vocaline Company of America, Inc.
- TV-DOWN**
Air Associates, Inc.
- TYGON**
U. S. Stoneware Co.
- TYGORUST**
U. S. Stoneware Co.
- TYGOTHENE**
U. S. Stoneware Co.
- TYGOWELD**
U. S. Stoneware Co.
- TY-LOK**
Air Associates, Inc.
- TYNISWITCH**
Sessions Clock Co.
- TYNEE-DRY**
Pyramid Electric Co.
- TYNI-COUPLE**
Detroit Controls Corp.
- TYPOTRON**
Hughes Products Division,
Hughes Aircraft Co.
- TYPE-O-WRITER**
Kellogg Switchboard & Supply Co.
- TYPE "R" RESISTOR**
Telewave Labs., Inc.
- TY-PLY**
Marbon Corp.
- TZUCOPY PHOTO**
General Photo Products Co., Inc.
- U-238**
Goldak Company, Inc., The
- UASCO**
Mitchell Industries, Inc.
- UBABOND**
UBS Chemical Co.
- UBAGRIP**
UBS Chemical Co.
- UBAPOL**
UBS Chemical Co.
- UCILON**
Metal & Thermit Corp.
- UCINITE**
United Carr Fastener Corp.
- U CON**
Mucon Corp.
- UIVELECTRIC**
United Mfg. & Service Co.
- ULTI-MEG**
Electrovert Inc.
- ULTRA**
Camburn, Inc.
- ULTRA-BEAM**
Camburn, Inc.
- ULTRABOOSTER**
Blonder-Tongue Laboratories, Inc.
- ULTRA-CAL**
Cubic Corp.
- ULTRACOMPACT**
United Transformer Corporation.
- ULTRA-FORMER**
Kay Electric Co.
- ULTRA-GEN**
Alcar Instruments, Inc.
- ULTRA LINEAR**
Acro Products Co.
- ULTRA-MARKER**
Kay Electric Co.
- ULTRAMAX**
Fischer & Porter Co.
- ULTRA MET**
Cannon-Muskegon Corp.
- ULTRA-PIX**
Kay Electric Co.
- ULTRASIL**
Amersil Co., Inc.
- ULTRA-STABLVIS**
Fischer & Porter Co.
- ULTRA-SWEEP**
Kay Electric Co.
- ULTRA-TIE**
Channel Master Co.
- ULTRATONE**
Audio Industries, Inc.
- ULTRATUBE**
Plastoid Corp.
- ULTRAVERTER**
Blonder-Tongue Laboratories, Inc.
- ULTRA V-BEAM**
J F D Mfg. Co., Inc.
- ULTRA-VISGOSON**
Bendix Aviation Corp., Cincinnati Div.
- ULTRON**
Monsanto Chemical Co.
- UMP**
Illinois Condenser Co.
- UNBRAKO**
Standard Pressed Steel Co.
- UNDARK**
U. S. Radium Corp.
- UNECAP**
United Electronic Mfg. Corp.
- UNEX**
Nichols & Clark, Inc.
- UNI-BRIDGE**
Industrial Electronics, Inc.
- UNICAST**
Redmond Co., Inc.
- UNICHROME**
Metal & Thermit Corp.
- UNICLOSED**
U. S. Electrical Motors, Inc.
- UNICON**
United Condenser Corp.
- UNI-CORE**
Alpha Metals, Inc.
- UNI-CRIMP**
Sherman Mfg. Co., H. B.
- UNIDYNE**
Shure Brothers, Inc.
- UNIFILTER**
Ortho Filter Corp.
- UNIFLARE**
Scovill Mfg. Co.
- UNIGRAIN**
Somers Brass Co.
- UNILINE**
Cascade Research Corp.
- UNILOK**
Burndy Corp.
- UNIMATIC**
Calbest Engineering & Electronics Co.
- UNIMATIC**
Unitek Corp.
- UNIMATION**
Manning, Maxwell & Moore, Inc.,
Aircraft Products Div.
- UNIMAX**
Maxson Corp., W. L.
- UNION**
Jefferson Electric Co.
- UNIONMELT**
Linde Air Products Co., Unit of
Union Carbide & Carbon Corp.
- UNIPAK**
Sprague Electric Co.
- UNIPLEX**
Burgess Battery Co.
- UNIPLEX**
Shure Brothers, Inc.
- UNIPUG**
Applegate & Co., C. J.
- UNIPOINT**
Shure Brothers, Inc.
- UNIPOLE**
Andrew Corp.
- UNIPRENE**
General Cable Corp.
- UNIREG**
Universal Electronics Co.
- UNISEAL**
Johns-Manville
- UNI-SHAFT**
Mallory & Co., Inc., P. R.
- UNITACT**
Bristol Co., The
- UNIT BREAKER**
Cutler-Hammer, Inc.
- UNITERM**
Cook Electric Co.
- UNITIZED**
Magnatran, Inc.
- UNITONE**
Duotone Co., Inc.
- UNITROL**
Cutler-Hammer, Inc.
- UNIVAC**
Remington Rand Univac Div. of Sperry
Rand Corp.
- UNIVERSAL**
Johns-Manville
- UNIVERSAL**
Mueller Electric Co.
- UNIVERSAL**
Brush Electronics Co.
- UNIVERSAL BRIDGE SWITCH**
Brush Electronics Co.
- UNIVERSAL MASTER**
Hovis Screwlock Co.
- UNIVERTER**
Boonton Radio Corp.
- UNIVIS**
Esso Standard Oil Co.
- UNIVOLT**
Esso Standard Oil Co.
- UPDOWN**
Service Instruments Co.
- UPPCO**
United Pressed Products Co.
- UPSON**
Republic Steel Corp.
- URAC**
American Cyanamid Co.
- URBANETTE**
Videon Electronic Corp.
- URELITE**
I-T-E Circuit Breaker Co.
- USC**
U. S. Components Inc.
- USD**
United States Dynamics Corp.
- U.S.E.**
U. S. Electronics Corp.
- USECO**
U. S. Engineering Co., Div. of Litton
Industries.
- USG**
U. S. Graphite Co. Div. of
The Wickes Corp.
- US-KON**
U. S. Rubber Co.
- USRC**
U. S. Relay Co.
- USALITE**
Stupakoff Ceramic & Mfg. Co. Div. of
The Carborundum Co.
- USCOLITE**
Chicago Die Mold Div. of U. S.
Rubber Co.
- USEMENT**
U. S. Rubber Co.
- USEX**
U. S. Rubber Co.
- USEX ABBOSSEALD**
U. S. Rubber Co.
- USKORNA**
U. S. Rubber Co.
- USPREME**
U. S. Rubber Co.
- USRUB**
U. S. Rubber Co.
- USS**
United States Steel Corp.
- U.S.S. AMERICAN**
American Steel & Wire Co.
- UTC**
United Transformer Corp.
- UTE**
Sangamo Electric Co.
- UTILASTIC**
Paisley Products, Inc.
- UTILICON**
Diamond Power Specialty Corp.
- UTILIPHONE**
National Electronic Labs., Inc.
- UTILISCOPE**
Diamond Power Specialty Corp.
- UTILITURE**
Aluminum Co. of America
- UTILIVUE**
Diamond Power Specialty Corp.
- UVINOL**
Antara Chemicals Div. of General
Aniline & Film Corp.
- UYCOR**
Corning Glass Works
- V**
Vitramon, Inc.
- V-2**
Fretco Inc.
- V-4**
Fretco Inc.
- V61**
Voltarc Tubes Inc.
- V/A CELL**
Fischer & Porter Co.
- V-HEAT**
Electric Eye Equipment Co.
- VAARO**
Davis Electronics
- VACDAC**
Technical Apparatus Builders
- VACOMBO**
Vaco Products Co.
- VAGABOND**
Shure Brothers, Inc.
- VALENCO**
Valley Engineering Co.
- VALIANT**
Johnson Co., E. F.
- VALVRATOR**
Fischer & Porter Co.
- VALSEAL**
Richardson Co., The
- VAN de GRAAFF**
High Voltage Engineering Corp.
- VAPQ**
Post Co., Frederick
- VAPQFLASH**
Manning, Maxwell & Moore Inc.
- VAPOR-TEMP**
Blue M Electric Co.
- VARBLOK**
Tobe Deutschmann Corp.
- VARFLO**
Varflex Corp.
- VARGLAS**
Varflex Corp.
- VARIAC**
General Radio Co.
- VARIATEN**
Shallcross Mfg. Co.
- VARICELL**
Superior Electric Co., The
- VARI-CHOKE**
Superex Electronics Corp.
- VARICON**
Elco Corp.
- VARICON**
Variable Condenser Corp.
- VARIDOT**
Simpson Electric Co., Div. of
American Gage & Machine Co.
- VARIDRIVES**
U. S. Electrical Motors, Inc.
- VARIETY**
Electron Enterprises
- VARIFILE**
Photographic Products, Inc.
- VARI-FLEX**
Hammer Electronics Co., Inc.
- VARIJUST**
Anton Electronic Laboratories, Inc.
- VARI-LOOPSTICK**
Superex Electronics Corp.
- VARMATCH**
United Transformer Corp.
- VARI-MOUNT**
Foote Brothers Gear & Machine Corp.
- VARIOHM**
Mallory & Co., Inc., P. R.

VARI-OHM
 Norden-Ketay Corp.
VARI/PHASE
 Clarostat Mfg. Co., Inc.
VARI/PHASE
 Dubrow Development Co.
VARI/PLLOTTER
 Electronic Associates, Inc.
VARIPOLE
 Califone Corp.
VARIPOWER
 United Transformer Corp.
VARISPEED
 Audio-Master Corp.
VARI-SPLITTER
 McLaughlin Corp., J. L. A.
VARI-SWEEP
 Kay Electric Co.
VARITRAN
 United Transformer Corp.
VAR-O-POWER
 Eclipse-Pioneer Div., Bendix Aviation Corp.
VAR PAK
 Tobe Deutschmann Corp.
VARRO
 Davis Electronics
VARSIL
 New Jersey Wood Finishing Co.
VARSLOT
 New Jersey Wood Finishing Co.
VASCO
 Mitchell Industries, Inc.
VARTEX
 New Jersey Wood Finishing Co.
VAV
 Fluke Mfg. Co., Inc., John
VDA "100"
 Eastern Precision Resistor Corp.
VECO
 Victory Engineering Corp.
VECTOGRAPH
 DuMont Laboratories, Inc., Allen B.
VECTORYZER
 Advance Electronics Co.
VECTROHM
 Vectron, Inc.
VECTROL
 Brownthorn Electronics, Inc.
VECTROLYER
 Advance Electronics Co.
VECTROMATIC
 Vectron, Inc.
VECTRONIC
 Vectron, Inc.
VEGETOL
 Cornell-Dubilier Electric Corp.
VEGIMAL
 Paisley Products, Inc.
VELOMETER
 Illinois Testing Labs, Inc.
VENDLITES
 Drake Mfg. Co.
VENTILAIRE
 Electric Trading Co.
VENTISEL
 Electronic Devices, Inc.,
 Precision Rectifier Div.
VENUS
 JFD Mfg. Co., Inc.
VENTURI-FLO
 Barber-Colman Co.
VERIFAX
 Eastman Kodak Co.
VERI-TELL
 West Instrument Corp.
VERITHERM
 Kelk & Co., G. F.
VERITHIN
 Eagle Pencil Co.
VERNIER-SET
 Automatic Temperature Control Co., Inc.
VERNISTAT
 Perkin-Elmer Corporation, The
VERSACONE
 Radio Merchandise Sales
VERSA-LINER
 Peck & Harvey
VERSALITE
 U. S. Rubber Co.
VERSALOG
 Post & Co., Frederick
VERSATEX
 Shure Brothers
VERSATILE DRAFTSMAN
 Chart-Pak, Inc.
VERSA-TOOL
 Phillips Mfg. Co., Inc.
VERSATROL
 Assembly Products, Inc.
VHS
 Assembly Products, Inc.
VIBESTON
 U. S. Rubber Co.
VIBRAGLASS
 Glass Fibers, Inc.
VIBRALLOY
 Arnold Engineering Co.
VIBRALYZER
 Kay Electric Co.
VIBRAPAK
 Mallory & Co., Inc., P. R.
VIBRASENDER
 Motorola Inc.
VIBRA-SHOCK
 Robinson Aviation, Inc.
VIBRASWITCH
 Beta Corp.

VIBRASWITCH
 Fielden Instrument Div. of
 Robertshaw-Fulton Controls Co.
VIBRATAB
 Telecomputing Corp.
VIBRATROL
 Pneumafil Corp.
VIBREX
 General Tire & Rubber Co., The.
VIBROGROUND
 Associated Research Inc.
VIBROMETER
 Televiso Products, Inc.
VIBROMIKE
 Brush Electronics Co.
VIBROPACK
 Mallory & Co., Inc., P. R.
VIBROTEST
 Associated Research, Inc.
VIBROTRON
 BJ Electronics, Borg-Warner Corp.
VICALLOY
 Arnold Engineering Co.
VICO
 Video Industries Co.
VICTOR
 Radio Corp. of America
VIC-DAR
 Victor Adding Machine Co.
VICTORIA
 Fretco Inc.
VICTROLA
 Radio Corp. of America
VIDALIGNER
 Kay Electric Co.
VIDAUTRAN
 Electronics Development Co., Inc.
VIDEO BEAM
 Camburn, Inc.
VIDEOCOUPLER
 Mallory & Co., Inc., P. R.
VIDEOFILM
 General Precision Laboratory, Inc.
VIDEOGRAM
 General Precision Laboratory, Inc.
VIDEOMETER
 Hickok Electrical Instrument Co.
VIDEOPTICS
 Burke & James, Inc.
VIDEOSTIGMAT
 Burke & James, Inc.
VIDEOTRON
 National Union Electric Corp.
VIDIGAGE
 Branson Instruments, Inc.
VIDI MASTER
 Communication Measurements Lab., Inc.
VIEWLITE
 Viewlex, Inc.
VIEWMATIC
 Viewlex, Inc.
VIEWTALK
 Viewlex, Inc.
VIKANE
 Cornell-Dubilier Electric Corp.
VIKING
 Jensen Mfg. Co.
VIKING
 Johnson Co., E. F.
VIKING I
 Hudson American Corp.
VIKING II
 Hudson American Corp.
VIMLITE
 Celanese Corp. of America
VINALAK
 Reichhold Chemicals, Inc.
VINAPEX
 Apex Coated Fabrics Co.
VINEX
 Union Plastics Corp.
VINPAK
 Protective Coatings Corp.
VINYL
 Alpha Wire Corp.
VINYL-CLAD
 Paul & Stein Bros., Inc., F. H.
VINYLLITE
 Bakelite Corp., A Div. of Union Carbide
 & Carbon Corp.
VINYSEAL
 Bakelite Corp., A Div. of Union Carbide
 & Carbon Corp.
VINYON
 Bakelite Corp., A Div. of Union Carbide
 & Carbon Corp.
VIPOWER
 Cornell-Dubilier Electric Corp.
VIPOWER
 Radiart Corp.
VISABLE PROOF
 Electric Heat Control Co., The
VISCOFILM
 Industrial Condenser Corp.
VISCONOL
 Telegraph Condenser Co., Ltd.
VISCOR
 Weston Electrical Instruments Co.
VISORATOR
 Fischer & Porter Co.
VISICODE
 Westinghouse Electric Corp.
VISICORDER
 Heiland Div. of Minneapolis-Honeywell
 Regulator Co.

VISIFOCUS
 Paillard Products Inc.
VISION EAR
 Nichols & Clark, Inc.
VISION MASTER
 Antennex Co.
VISION MASTER
 Clear Beam Television Antenna Co.
VISITRON
 Rauland Corp.
VISO-CARDIETTE
 Sanborn Co.
VISTEX WITH TEFLON
 American Felt Co.
VITAMIN Q
 Sprague Electric Co.
VITAVOX
 Radionic Transformer Co.
VITREOSIL
 Thermal American Fused Quartz Co., Inc.
VITRICON
 Welwyn International Inc.
VITROHM
 Ward Leonard Electric Co.
VITROLAIN
 Star Porcelain Co.
VITRON
 LOF Glass Fibers Co.
VIZ
 Molded Insulation Co.
V M
 Harmon, Lichtenstein & Co.
VOCAL-AIRE
 Dilks Co., The
VOCATRON
 Vocaline Company of America, Inc.
VOICE OF MUSIC
 V-M Corp.
VOICE OF THEATRE
 Altec Lansing Corp.
VOICEWRITER
 Edison Inc., Thomas A.
VOICON
 Radio Frequency Labs., Inc.
VOLAN
 du Pont de Nemours & Co., Inc., E. I.
VOLOCITROL
 Barbar-Colman Co.
VOLUMETER
 Electronic Measurements Corp.
VOLSEAL
 Johns-Manville
VOLTABLOC
 Saff Corp. of America
VOLTALAC
 Standard-Toch Chemicals, Inc.
VOLT-AMP
 Industrial Devices, Inc.
VOLTASCOPE
 Polarad Electronics Corp.
VOLT-A-TEST
 Sittler Corp.
VOLTBOX
 Superior Electric Co.
VOLTBOX A-C
 Superior Electric Co.
VOLT-OHMATIC
 Bergen Laboratories
VOLTOHMYST
 Radio Corporation of America
VOLTROL
 Acme Electric Corp.
VOLTSTAT
 Industrial Transformer Co.
VOLUNTEER
 Industrial Radio Corp.
VORLAC
 Vorac Co., The
VORNAME L
 Vorac Co.
VO-TRON
 Vokar Corp.
VOYCALL
 Lake Mfg. Co.
V & S
 Volkors & Schaffer Mfg. Corp.
VTP
 Vacuum Tube Products Co., Inc.
V-2
 Fretco Inc.
VUELITE
 Monsanto Chemical Co.
VUEPAK
 Monsanto Chemical Co.
VULCATEX
 Horn Co., Inc., A. C.
VULCOID
 Continental-Diamond Fibre Corp.
VU MAGNEMITE
 Amplifier Corp. of America
VYCOR
 Corning Glass Works
VYNA-KOTE
 Organic Development Corp.

W/B STENTORIAN
 Barker Sales Co.
WAC-TAC
 Wac Line, Inc.
WAHLQUIST
 Nilsson Electrical Laboratory, Inc.
WALCO
 Electrovox Co., Inc.
WALDEN
 Stevens-Walden, Inc.
WALDES TRUARC
 Waldes Kohinoor, Inc.
WALKIE-RECORDALL
 Miles Reproducer Co., Inc.

WALLOY
 Wall Mfg. Co.
WALSCOFLUX
 Walsco Electronics Corp.
WAMCO
 Walnut Machine Co.
WARRENEX
 Warren Wire Co.
WARRENITE
 Warren Wire Co.
WARRIOR
 Sangamo Electric Co.
WATCHMASTER
 American Time Products, Inc.
WATERWITE
 Bache & Co., Semon
WATERWITE GLASS
 Bache & Co., Semon.
WATSON
 Burke & James, Inc.
WATTERSON
 Davis & Co., J. W.
WAVEFLEX
 Titeflex, Inc.
WAYNE-KERR
 Marconi Instruments
 W. D. C.
 Paisley Products Inc.
WEATHERITE MAGNEMITE
 Amplifier Corp. of America.
WEATHERITE VU MAGNEMITE
 Amplifier Corp. of America.
WEBB
 Carpenter Steel Co.
WEDGE-GRIP
 Sherman Mfg. Co., H. B.
WECO
 Weinschel Engineering Co., Inc.
WEDGE-ON
 Thomas & Betts Co.
WEDGEIE
 Insulation Manufacturers Corp.
WEIGER-WEED
 Fansteel Metallurgical Corp.
WELCAP
 Welwyn International, Inc.
WELDAL
 Enthone, Inc.
WELDOMATIC
 Westinghouse Electric Corp.
WELD-O-TIMER
 Westinghouse Electric Corp.
WELD-O-TROL
 Westinghouse Electric Corp.
WELDOX
 Hardman Co., Inc., H. V.
WELDPOWER
 Raytheon Mfg. Co.
WELDRAWN
 Superior Tube Co.
WELMEG
 Welwyn International Inc.
WELMET
 Welwyn International Inc.
WEMCALLOY
 Westinghouse Electric Corp.
WES CO
 West Coast Electrical Mfg. Corp.
WESGO
 Western Gold & Platinum Co.
WESGO AL-300
 Western Gold & Platinum Co.
WESGO AL-1009
 Western Gold & Platinum Co.
WESLAB
 Weston Laboratories, Inc.
WESTACH
 Westberg Mfg. Co.
WEST-CAP
 San Fernando Electric Mfg. Co.
WESTLINE
 Western Lithograph Co.
WEST TEST
 Automatic Electric Sales Corp.
WETOIL
 Farrelloy Co.
WHARFEDALE
 British Industries Corp.
WHIPLoad
 Johnson Co., E. F.
WHIPPET
 JFD Mfg. Co., Inc.
WHIRLCLAD
 Polymer Corporation, The
WHIRLSINT
 Polymer Corporation, The.
WHITE NOISETEST
 Sylvania Electric Products Inc.
WIDE STRIP
 Bristol Co., The.
WILCO
 Wilson Co., The, H. A.
WILCOLEC
 Wilcox Electric Co.
WILKOR
 Aerovox Corp.
WILLIAMSON "HALLMARK"
 British Radio Electronics Ltd.
WILTOMATIC
 Wilton Tool Mfg. Co.
WINCHESTER
 Olin Mathieson Chemical Corp.
WINCO
 Hudson Wire Co.

WINCO
 Wincharger Corp.
WINDSOR
 American Felt Co.
WIN-TRONIX
 Winston Electronics, Inc.
WIPERMALLOY
 United Transformer Corp.
WIRECOM
 Cook Electric Co.
WIRE-NUT
 Ideal Industries, Inc.
WIREFHONE
 Molded Insulation Co.
WIRETONE
 Molded Insulation Co.
WIREWATT
 Ohmite Mfg. Co.
WIRTCO
 Wirt Co.
WISSH
 Workman TV, Inc.
WISSH-JET
 Workman TV, Inc.
WONDER-BOW
 Channel Master Co.
WONDERFLUX
 American Silver Co., Inc.
WONDERLING
 Rego Insulated Wire Co.
WOOD GLU
 Paisley Products Inc.
WOOD-RAY
 Woodwelding, Inc.
WOOD WELDER
 Cavitron Electron Oscillator Co. Div. of
 Short Wave Plastic Forming Co.

WORBUD ASSOCIATES
 Dubrow Development Co.
WORK CENTER
 Alden Systems Co.
WRINLAY
 Photo Chemical Products, Inc.
WYD-ANGLE
 Ess Specialty Corp.
XACTEMP
 Gordon Co., Claud S.
XACTLINE
 Gordon Co., Claud S.
XCEL
 Xcelite, Inc.
XELA
 Klein & Sons, Mathias
XELON
 Times, Wire & Cable Co.
XENON
 Hanovia Chemical & Mfg. Co.
XERNIT
 Haloid Co.
XEROX
 Haloid Co., The
XPANDIT
 Photo Chemical Products, Inc.
X-PRESS
 Cook Electric Co.
XRD
 X-Ray Dept. of General Electric Co.
XTALATOR
 Kay Electric Co.
XTE
 Irvington Varnish & Insulator
 Div. of Minnesota Mining & Mfg. Co.

X-VAR
 Fidelity Chemical Products Corp.
X-WASHERS
 Standard Locknut & Lockwasher, Inc.
XY
 Stromberg-Carlson Co., Div. of
 General Dynamics Corp.
YAGI-HELIX
 JFD Mfg. Co., Inc.
YANKEE
 Stanley Tools Div., Stanley Works
YARDARM
 Radio Merchandise Sales, Inc.
YORKMESH
 York Co., Inc., Otto H.
Z-ANGLE
 Acton Laboratories, Inc.
Z ANGLE
 Technology Instrument Corp.
Z-SCOPE
 Cascade Research Corp.
ZAHOODIAKIN
 Scovill Mfg. Co.
ZENO-KOTE
 Zenith Optical Lab.
ZEO-DUR
 Permutit Co.
ZEO-KARB
 Permutit Co.
ZEPHYR
 Trio Mfg. Co.
ZEPHYR ROYAL
 Trio Mfg. Co.
ZEROMATIC
 Scientific Instruments Div.,
 Beckman Instruments, Inc.

ZERO READER
 Sperry Gyroscope Co. Div.
 of the Sperry Corp.
ZERO-START
 Phillips Mfg. Co., Inc.
ZIFOR
 Collins Radio Co.
ZIP
 JFD Mfg. Co., Inc.
ZIPCORD
 U. S. Rubber Co.
ZIP-GRIP
 Set Screw Mfg. Co.
ZIP-IN
 Amphenol Electronics Corp.
ZIPOHMS
 Muter Co.
ZIPPER
 Centralab Div. of Globe-Union, Inc.
ZIPSOL
 Fidelity Chemical Products Corp.
ZIRCALOY
 Carborundum Metals Co., The.
ZIRMET
 Foote Mineral Co.
ZOOMAR
 Television Zoomar Corp.
ZOOM UP
 Camburn, Inc.
ZOOM-UP
 JFD Mfg. Co., Inc.
ZYROX
 Bakelite Co. A Div. of Union Carbide
 & Carbon Corp.
ZYTEL
 du Pont de Nemours & Co., Inc., E. I.

MANUFACTURERS INDEX

A listing of the companies engaged in the manufacture of all types of electronic components and complete electronic equipment. They are alphabetically arranged for convenient use and quick reference.

A

- AA Metal Products, Inc., 154 Elliott St., Box 716, Brattleboro, Vt.
- A. C. Transformer Corp., 89 Madison St., Newark, N. J.
- ACF Electronics, 800 N. Pitt St., Alexandria, Va.
- A/G/A Div. of Elastic Stop Nut Corp. of America, 1027 Newark Ave., Elizabeth, N. J.
- A. P. W. Co., 72 W. Main St., Rockaway, N. J.
- A&P Metal Products Mfg. Corp., 111 Bloomingdale Rd., Hicksville, N. Y.
- A. R. F. Products, Inc., 7627 Lake St., River Forest, Ill.
- Abalon Precision Mfg. Corp., 540 Casanova St., Bronx 59, N. Y.
- Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing 1, Mich.
- Accurate Electronics Corp., 169 Abbe Rd., S., Elyria, Ohio.
- Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
- Accurate Mfg. Co., 44 Hepworth Place, Garfield, N. J.
- Accurate Paper Tube Co., 801 N. Peoria St., Chicago 22, Ill.
- Accurate Specialties Co., Inc., 9-01 43rd Ave., Long Island City, N. Y.
- Accurate Spring Mfg. Co., 3811 W. Lake St., Chicago, Ill.
- Ace Coil & Electronics Co., 912 Lincoln Highway, Metuchen, N. J.
- Ace Electronics Associates, 99 Dover St., Somerville 44, Mass.
- Ace Engineering & Machine Co., Inc., 3644 N. Lawrence St., Philadelphia 40, Pa.
- Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
- Ace Spring Mfg. Co., 77 W. Houston St., New York 12, N. Y.
- Acheson Colloids Co., 1950 Washington Ave., Port Huron, Mich.
- Ackerman Engravers, 458 Broadway, New York, N. Y.
- Ackerman-Gould Co., 92 Blecker St., New York, N. Y.
- Ackerman-Johnson Co., 625 W. Jackson Blvd., Chicago 6, Ill.
- Acme Battery Co., 200 Henry St., Stamford, Conn.
- Acme Electric Corp., 31 Water St., Cuba, N. Y.
- Acme Electric Heating Co., 1217 Washington St., Boston, Mass.
- Acme Electronix Div. of NEA Service, Inc., West Third & Lakeside, Cleveland 13, Ohio.
- Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
- Acme Wire Co., New Haven 14, Conn.
- Acme Wire Machine Co., 234 E. 3rd St., New York, N. Y.
- Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
- Acro Div. of The Robertshaw-Fulton Controls Co., 2040 E. Main St., Columbus 16, Ohio.
- Acro Products Co., 369 Shurs Lane, Philadelphia 28, Pa.
- AcroMag Co., 22519 Telegraph Rd., Detroit 19, Mich.
- Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
- Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
- Action Laboratories, Inc., 533 Main St., Acton, Mass.
- Adams & Westlake Co., The, Michigan St., Elkhart, Ind.
- Adcon Corp., 1117 Commonwealth Ave., Boston 15, Mass.
- Adel Precision Products Div. of General Metals Corp., 10777 Vanowen St., Burbank, Calif.
- Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.
- Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
- Admiral Tool & Mfg. Co., 2354 N. Clybourn, Chicago 14, Ill.
- Admittance-Namco Corp., Farmingdale, N. Y.
- Advance Electronics Lab., Inc., 249-259 Terhune Ave., Passaic, N. J.
- Advance Instrument Corp., 1709 F St., Belmar, N. J.
- Advanced Electronics, Inc., 94 Silas Deane Highway, Rocky Hill, Conn.
- Advanced Vacuum Products, Inc., Div. of General Ceramics Corp., 122 Liberty St., Stamford, Conn.
- Aemo Co., 62 State St., Mankato, Minn.
- Aermotive Equipment Corp., 1632-B Central St., Kansas City 10, Mo.
- Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
- Aero Research Instrument Co., 315 N. Aberdeen St., Chicago 7, Ill.
- Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
- Aerolab Development Co., 330 W. Holly St., Pasadena, Calif.
- Aerolite Electronics Corp., 507-26th St., Union City, N. J.
- Aerolux Lights Corp., 653 Eleventh Ave., New York 36, N. Y.
- Aeronautical Communications Equipment, Inc., 3090 S.W. 37th Ave., Miami 33, Fla.
- Aeronautical Electric Co., 5656 Northwest Highway, Chicago 30, Ill.
- Aeronautical Electronics Inc., Raleigh-Durham Airport, P.O. Box 6527, Raleigh, N. C.
- Aeroprojects Incorporated, 310 E. Rosedale Ave., West Chester, Pa.
- Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
- Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
- Aerovox Corp., Pacific Coast Div., 2724 So. Peck Rd., Monrovia, Calif.
- Ainslie Corp., 312 Quincy Ave., Quincy 69, Mass.
- Air Associates, Inc., Research & Development Div., 511 Joyce St., Orange, N. J.
- Air Control Installations, Ltd., Ruislip, Middlesex, England.
- Airborne Accessories Corp., 1414 Chestnut Ave., Hillside, N. J.
- Airborne Electronics Co., 6813 Troost Ave., North Hollywood, Calif.
- Airborne, Inc., 4868 N. Clark, Chicago 40, Ill.
- Airborne Instruments Lab., Inc., 160 Old Country Rd., Mineola, N. Y.
- Aircom Inc., 354 Main St., Winthrop 52, Mass.
- Aircor Inc., 1209 E. Grand St., Elizabeth, N. J.
- Aircraft Armaments, Inc., Cockeysville, Md.
- Aircraft Radio Corp., Boonton, N. J.
- Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
- Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.
- Aireco, Inc., 2323 Second Ave., Carman, Schenectady 3, N. Y.
- Airflyte Electronics Co., 535-9 Avenue "A", Bayonne, N. J.
- Air-Marine Motors, Inc., 365 Bayview Ave., Amityville, N. Y.
- Airmec, Ltd., High Wycombe, Buckinghamshire, England.
- Airpax Products Co., Middle River, Baltimore 20, Maryland.
- Airtron, Inc., 1101 W. Elizabeth Ave., Linden, N. J.
- Ajax Condenser Corp., 10905 Chandler Blvd., North Hollywood, Calif.
- Aladdin Electronics A Div of Aladdin Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
- Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
- Alco Electronics Mfg. Co., 3 Wolcott Ave., Lawrence, Mass.
- Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
- Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
- Alden Electronic & Impulse Recording Equipment Co., Box 125, Westboro, Mass.
- Alden Products Co., 112 N. Main St., Brockton 64, Mass.
- Alden Systems, Inc., Alden Research Center, Westboro, Mass.
- Electric Mfg. Co., 7842 39th Avenue, Kenosha, Wis.
- Alfax Paper & Engineering Co., Washington St., P. O. Box 125, Westboro, Mass.
- Alford Mfg. Co., Inc., 299 Atlantic Ave., Boston, Mass.
- Alfred Electronics, 897 Commercial St., Palo Alto, Calif.
- Algo, Inc., 251 West St., South Hackensack, N. J.
- All American Tool & Mfg. Co., 8027 Lawndale, Skokie, Ill.
- All Star Products, Inc., Defiance, Ohio.
- All-State Welding Alloys Co., Inc., 249 Ferris Ave., White Plains, N. Y.
- All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
- Allard Instrument Corp., 146 E. Second St., Mineola, N. Y.
- Allegany Instrument Co., Inc., 1091 Willis Mountain, Cumberland, Md.
- Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
- Allen Co., L. B., Inc., 6751 Bryn Mawr Ave., Chicago 31, Ill.
- Allen-Bradley Co., 136 W. Greenfield Ave., Milwaukee 4, Wis.
- Allen Mfg. Co., Hartford 2, Conn.
- Alliance Mfg. Co., Lake Park Blvd., Alliance, Ohio.
- Allied Allegri Inc., 141 River Rd., Nutley, N. J.
- Allied Control Co., Inc., 2 East End Ave., New York 21, N. Y.
- Allied Industries, Inc., 25th & Woodland Ave., Louisville 10, Ky.
- Allied Plastics Supply Corp., 75 Cliff St., New York 38, N. Y.
- Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
- Allied Radio Corp., 100 North Western Ave., Chicago 80, Ill.
- Allied Recording Products Co., 32-32 Greenpoint Ave., Long Island City 1, N. Y.
- Allied Research & Engineering Div., Allied Record Mfg. Co., 6916 Santa Monica Blvd., Hollywood 38, Calif.
- Allies' Products Corp., P. O. Box 188, Kendall Branch, Miami, Fla.
- Allis-Chalmers Mfg. Co., 935 South 70th St., Milwaukee 1, Wis.
- Allison Laboratories, Inc., 14185 Skyline Drive, Puente, Calif.
- Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
- Alloy Metal Wire, Div. of H. K. Porter Co., Inc., Prospect Park, Pa.
- Alloy Precision Casting Co., E. 45th St. & Hamilton Ave., Cleveland 14, Ohio.
- Alloy Tube Div. of The Carpenter Steel Co., Union, N. J.
- Alnor Industries, Inc., 3901 W. 150th St., Cleveland 11, Ohio.
- Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.
- Alpha Instrument Co., 43 Hempstead St., New London, Conn.
- Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
- Alpha Wire Corp., 200 Varick St., New York 14, N. Y.
- Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif.
- Althor Products, 2301 Benson Ave., Brooklyn 14, N. Y.
- Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
- Aluminum Co. of America, Alcoa Bldg., Pittsburgh 19, Pa.
- Alvo Nut & Bolt Co., Inc., 1601 Grande Vista Ave., Los Angeles 23, Calif.
- Alwac Corp., 13041 S. Cerise Ave., Hawthorne, Calif.
- Atomat Electronic Hardware Co., 122 Sunset Rd., Mamaroneck, N. Y.
- Amold Co., Weymouth 88, Mass.
- Amco Engineering Co., 7335 Ainslie St., Chicago 31, Ill.
- Amelco, Inc., 2040 Colorado Ave., Santa Monica, Calif.
- Amerac, Inc., 116 Topsfield Rd., Wenham, Mass.
- American Aluminum Co., Sheffield St., Mountinside, N. J.
- American Blower Div. of American Standard, Detroit 32, Mich.
- American Brass Co., 414 Meadow St., Waterbury 20, Conn.
- American Chain & Cable Co., Inc., 601 Stephenson Bldg., Detroit 2, Mich.
- American Condenser Co., 4410 Ravenswood Ave., Chicago 40, Ill.
- American Cyanamid Co., 38 Rockefeller Plaza, New York 20, N. Y.
- American Diathermy Products, Inc., 11858 Mississippi Ave., Los Angeles 25, Calif.
- American Electrical Heater Co., 6110 Cass Ave., Detroit 2, Mich.
- American Electronics Labs, Inc., 121 N. 7th St., Philadelphia 6, Pa.
- American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.

American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
 American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
 American Feldmuehle Corp., 11 W. 42nd St., New York 36, N. Y.
 American Felt Co., Glenville, Conn.
 American Gas Furnace Co., 130 Spring St., Elizabeth, N. J.
 American Hard Rubber Co., 11 Mercer St., New York 13, N. Y.
 American Hinge Corp., 206 Wallabout St., Brooklyn 6, N. Y.
 American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
 American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
 American Lava Corp., Cherokee Blvd. & Mfgs. Rd., Chattanooga 5, Tenn.
 American Leonic Mfg. Co., Amber & Hagert Sts., Philadelphia 25, Pa.
 American Machine & Foundry Co., Defense Products Group, 1101 N. Royal St., Alexandria, Va.
 American Machine & Foundry Co., Electronics Div., 1085 Commonwealth Ave., Boston 15, Mass.
 American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
 American Metrix Corp., 40 Haddon Ave., Camden 2, N. J.
 American Mica Insulation Co., Manasquan, N. J.
 American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
 American Molded Products Co., 2727 W. Chicago Ave., Chicago 22, Ill.
 American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
 American Optical Co., Instrument Div., Box A, Buffalo 15, N. Y.
 American Pamcor, Inc., Havertown, Pa.
 American Perfit Crystal Corp., 653 Eleventh Ave., New York 36, N. Y.
 American Photocopy Equipment Co., 1920 W. Peterson, Chicago 26, Ill.
 American Plastics Corp., 342 Madison Ave., New York, N. Y.
 American Platinum Works, N.J.R.R. Ave. at Oliver St., Newark 5, N. J.
 American Printed Circuits Co., Forrest St., Metuchen, N. J.
 American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
 American Radar Components, Inc., Route 10, Whippany, N. J.
 American Rectifier Corp., 95 Lafayette St., New York 13, N. Y.
 American Research Corp., Route 6 & New Britain Ave., Farmington, Conn.
 American Research & Mfg. Corp., 920 Halpine Ave., Rockville, Md.
 American Scientific Development Co., 334 S. Main St., Atkinson, Wis.
 American Screw Co., Willimantic, Conn.
 American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 American Solder & Flux Co., 19th & Willard Sts., Philadelphia 40, Pa.
 American Speedlight Corp., 63-01 Metropolitan Ave., Middle Village 79, N. Y.
 American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
 American Super-Temperature Wires, Inc., W. Canal St., Winoski, Vt.
 American Television & Radio Co., 300 E. Fourth St., St. Paul 1, Minn.
 American Thermo Electric Co., 7269 Santa Monica Blvd., Los Angeles 46, Calif.
 American Time Products, Inc., 580 Fifth Ave., New York 36, N. Y.
 American Tradair Corp., Sub. of Ekco Electronics, Ltd., 34-01 30th St., Long Island City 6, N. Y.
 Amp Inc., 2100 Paxton St., Harrisburg, Pa.
 Amp Inc., Chemicals & Dielectrics Div., 155 Park St., Elizabethtown, Pa.
 Amerisil Co., Inc., 685 Ramsey Ave., Hillside 5, N. J.
 Amglo Corp., 4333 N. Ravenswood Ave., Chicago 13, Ill.
 Ampere Electronic Corp., 230 Duffy Ave., Hicksville, N. Y.
 Ampelite Co., 561 Broadway, New York 12, N. Y.
 Ampex Corp., 934 Charter St., Redwood City, Calif.
 Ampenol Electronics Corp., 1830 S. 54th Ave., Chicago 50, Ill.
 Amplifier Corp. of America, 396 Broadway, New York 13, N. Y.
 Ampli-Vision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif.
 Ampro Corp., 1345 Diversey Parkway, Chicago 14, Ill.
 Amthor Testing Instrument Co., 45-53 Van Sinderen Ave., Brooklyn 7, N. Y.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
 Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
 Analytical Measurements, Inc., 585 Main St., Chatham, N. J.
 Anatron Div. of Endevco Corp., 165 E. California St., Pasadena, Calif.
 Anchor Industrial Co., Div. of Anchor Plastics Co., Inc., 36-36 36th St., Long Island City 6, N. Y.
 Anchor Metal Co., 966 Meeker Ave., Brooklyn 22, N. Y.
 Andersen Laboratories, Inc., 39 Talcott Rd., West Hartford 10, Conn.
 Anderson Associates, H. V., 239 Park Ave., Berkeley Heights, N. J.
 Andrea Radio Corp., 27-01 Bridge Plaza North, Long Island City 1, N. Y.
 Andrew Corp., 363 E. 75th St., Chicago 19, Ill.
 Anelux Corp., 150 Causeway St., Boston 14, Mass.
 Angier Adhesives Div. of Interchemical Corp., 120 Potter St., Cambridge 42, Mass.

Annis Co., R. B., 1101 N. Delaware St., Indianapolis, Ind.
 Ansley Mfg. Co., Arthur, New Hope, Pa.
 Ansonia Wire & Cable Co., 111 Martin St., Ashton, R. I.
 Antara Chemicals Div. of General Aniline & Film Corp., 435 Hudson St., New York 14, N. Y.
 Antennex Co., 4060 Ocean Park Ave., Venice, Calif.
 Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
 Antlab, 4950 N. High St., Columbus 14, Ohio.
 Anton Electronic Laboratories, Inc., 1226 Flushing Ave., Brooklyn 37, N. Y.
 Anton Machine Works, 1226 Flushing Ave., Brooklyn 37, N. Y.
 Apex Coated Fabrics Co., 12 E. 22nd St., New York 10, N. Y.
 Apex Machine Co., 14-13 118th St., College Point 56, N. Y.
 Apex Wire & Cable Corp., 237 37th St., Brooklyn 32, N. Y.
 Applegate & Co., C. J., 1840 24th St., Boulder, Colo.
 Applance Products, 520 Fifth Ave., New York 36, N. Y.
 Applied Dynamics Corp., 32 N. Main St., Natick, Mass.
 Applied Electronics Co., Inc., 213 E. Grand Ave., South San Francisco, Calif.
 Applied Physics Corp., 362 W. Colorado St., Pasadena 1, Calif.
 Applied Radiation Corp., 1210 Spring Brook Rd., Walnut Creek, Calif.
 Applied Research Inc., 163-07 Depot Rd., Flushing, N. Y.
 Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
 Applied Resins Corp., 304 Oraton St., Newark 4, N. J.
 Applied Science Corp. of Princeton, P.O. Box 44, Princeton, N. J.
 Arch Gear Works, Inc., 97 Holmes St., North Quincy (71), Mass.
 Arco Electronics Inc., 64 White St., New York 13, N. Y.
 Arco Transformer & Electric Corp., 1602 S. Hanna St., Fort Wayne, Ind.
 Arcoelectric Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
 Arcom Associates, 50 S. San Gabriel, Pasadena 10, Calif.
 Arenberg Ultrasonic Laboratory, Inc., 94 Green St., Jamaica Plain 30, Mass.
 Argos Products Co., 310 Main St., Genoa, Ill.
 Aries Laboratories, Inc., 45-33 Davis St., Long Island City 1, N. Y.
 Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
 Arma Div. of American Bosch Arma Corp., Old Country Rd., Garden City, N. Y.
 Armco Steel Corp., 703 Curtis St., Middletown, Ohio.
 Arnel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y.
 Armstrong Cork Co., Lancaster, Pa.
 Armstrong Products Co., P.O. Box 1-EB, Warsaw, Ind.
 Arnold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
 Arnold Engineering Co., Marengo, Ill.
 Arnold Magnetics Corp., 4613 W. Jefferson Blvd., Los Angeles 16, Calif.
 Arnoux Corp., Box 34628, Los Angeles, Calif.
 Arro Expansion Bolt Co., 1522 Boone Ave., Marlon, Ohio.
 Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
 Arrowhead Products, 2300 Curry St., Long Beach 5, Calif.
 Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Art Wire & Stamping Co., 227 High St., Newark 2, N. J.
 Artisan Electronic Corp., 171 Ridgedale Ave., Morris-town, N. J.
 Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
 Artos Engineering Co., 2737 S. 28th St., Milwaukee, Wis.
 Arvin Industries, Inc., Radio & Television Div., Columbus, Ohio.
 Arwood Precision Casting Corp., 75 Washington St., Brooklyn, N. Y.
 Ashland Electric Products, Inc., 32-02 Queens Blvd., Long Island City 1, N. Y.
 Asco Wire & Cable Co., 2 Burroughs St., Bridgeport 7 Conn.
 Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
 Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
 Assembly Products, Inc., Chesterland 6, Ohio.
 Associated American Trading Division, 750 St. Ann's Ave., New York 56, N. Y.
 Associated Commodity Corp., Woolworth Bldg., 50th Fl., New York 7, N. Y.
 Associated Engineering Corp., 65 Kent St., Brookline 46, Mass.
 Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
 Associated Research, Inc., 3788 W. Belmont Ave., Chicago 18, Ill.
 Associated Specialties Co., 1751 Main St., Orefield, Pa.
 Associated Testing Laboratories, Inc., 407 Clinton Rd., Caldwell, N. J.
 Astatic Corporation, The, Conneaut, Ohio.
 Astron Corp., 255 Grant Ave., East Newark, N. J.
 Atlantic Engravers, Inc., 52 Ocean Ave., Amityville, N. Y.
 Atlantic India Rubber Works, Inc., Dept. EL, 571 Polk St., Chicago 7, Ill.
 Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
 Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.
 Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
 Atlas Coil, Inc., 63 Main St., Ansonia, Conn.
 Atlas E-E Corp., 47 Prospect St., Woburn, Mass.

Atlas Engineering Co., 176 Blue Hill Ave., Roxbury, Mass.
 Atlas Precision Products Co., 3802 Castor Ave., Philadelphia 24, Pa.
 Atlas Resistor Co., 1128 Madison St., Chester, Pa.
 Atlas Screw & Specialty Co., Inc., 450 Broome St., New York 13, N. Y.
 Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
 Atlee Corp., 47 Prospect St., Woburn, Mass.
 Atmosphere Control Co., Inc., 5315 Chester Ave., Philadelphia 43, Pa.
 Atomic Research Corp., P. O. Box 205, Colorado Springs, Colo.
 Attleboro Refining Co., Inc., Attleboro, Mass.
 Auburn Button Works, Inc., Auburn, N. Y.
 Auburn Mfg. Co., The, Pease Ave. & Stack St., Middletown, Conn.
 Audak Co., 500 Fifth Ave., New York, N. Y.
 Audar, Inc., P. O. Box 438M, Pasadena 18, Calif.
 Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
 Audio Devices, Inc., 444 Madison Ave., New York 22, N. Y.
 Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
 Audio Industries Inc., Michigan City, Ind.
 Audio Instrument Co., Inc., 133E W. 14th St., New York 11, N. Y.
 Audio-Master Corp., 17 E. 45th St., New York 17, N. Y.
 Audio Sears Corp., Shepard Hill Rd., Roxbury, N. Y.
 Audiomation Laboratories, 7230 Clinton Rd., Upper Darby 15, Pa.
 Audivox, Inc., 123 Worcester St., Boston 18, Mass.
 Augat Bros., Inc., 33 Perry Ave., Attleboro, Mass.
 Aurex Corp., 1117 N. Franklin St., Chicago 10, Ill.
 Austenal Laboratories, Inc., Microcast Div., 224 E. 39th St., New York 16, N. Y.
 Austin Co., The, Special Devices Div. 76 Ninth Ave., New York 11, N. Y.
 Autel Electronics Co., P. O. Box 225, Linden, N. J.
 Auto Engraver Co., Ridgefield, Conn.
 Autocrat Electronics Co., 5024 Elm St., Skokie, Ill.
 Automatic Coil Co., 415 Bedford Ave., Brooklyn, N. Y.
 Automatic Electric Sales Corp., 1033 W. Van Buren St., Chicago 7, Ill.
 Automatic Mfg. Div. of General Instrument Corp., 65 Gouverneur St., Newark, N. J.
 Automatic Metal Products Corp., 315 Berry St., Brooklyn 11, N. Y.
 Automatic & Precision Mfg. Co., 252 Hawthorne Ave., Yonkers 5, N. Y.
 Automatic Processing Corp., 1335 N. Wells St., Chicago, Ill.
 Automatic Radio Mfg. Co., Inc., 122 Brookline Ave., Boston, Mass.
 Automatic Signal Division Eastern Industries, Inc., Regent St., East Norwalk, Conn.
 Automatic Switch Co., 50-56 Hanover Rd., Florham Park, N. J.
 Automatic Timing & Controls, Inc., King of Prussia, Pa.
 Automation Instruments, Inc., Aluminum Foil Transformer Div., 401 E. Green St., Pasadena, Calif.
 Automation Management, Inc., Westboro, Mass.
 Autoscrew Co., 216-222 W. 18th Street, New York, N. Y.
 Autotron, Inc., 3629 N. Vermilion St., Danville, Ill.
 Autronics, Inc., Route 1, Box 812, Florissant, Mo.
 Autron Engineering, Inc., 1254 W. 6th St., Los Angeles 15, Calif.
 Avco Mfg. Corp., Crosley Div., 1329 Arlington St., Cincinnati 25, Ohio.
 Avery Adhesive Label Corp., 1616 S. California Ave., Monrovia, Calif.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
 Avion Division, ACF Industries, Inc., 11 Park Place, Paramus, N. J.
 Avionex Electronics Corp., 10855 Vanowen, North Hollywood, Calif.
 Avnet Electronic Supply Co., Inc., 36 N. Moore St., New York 13, N. Y.
 Avon Tube Div., Higbie Mfg. Co., Wagner Rd., Rochester, Mich.
 Axel Bros. Electronics Div., 134-20 Jamaica Ave., Jamaica, N. Y.
 Axler Associates, 102-42 43rd Ave., Corona 68, N. Y.

B

B & C Insulation Products, Inc., Lincoln Highway, Iselin, N. J.
 B & F Instruments Inc., 4732 N. Broad St., Philadelphia 41, Pa.
 BG Corp., The, 321 Broad Ave., Ridgefield, N. J.
 BJ Electronics, Borg-Warner Corp., 3300 Newport Blvd., Santa Ana, Calif.
 B & K Mfg. Co., 3726 N. Southport Ave., Chicago 13, Ill.
 B & M Electric Co., 838 Fourth Ave., Brooklyn 32, N. Y.
 Babcock Radio Engineering Co., P. O. Box 3097, Van Nuys, Calif.
 Babcock Relays, Inc., 1640 Monrovia St., Costa Mesa, Calif.
 Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
 Bacon Industries, Inc., 192 Pleasant St., Watertown, Mass.
 Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
 Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.
 Baird-Atomic, Inc., 33 University Rd., Cambridge 38, Mass.

Bakelite Co., A. Div. of Union Carbide & Carbon Corp., 30 East 42nd St., New York 17, N. Y.
 Baker & Adamson Products, General Chemical Div. of Allied Chemical & Dye Corp., 40 Rector St., New York, N. Y.
 Baker & Co., Inc., 113 Astor St., Newark, N. J.
 Baker Chemical Co., J. T., Phillipsburg, N. J.
 Balco Research Laboratories, 49-53 Edison Place, Newark 2, N. J.
 Baldwin Plano Co., 1801 Gilbert St., Cincinnati 2, Ohio
 Ballantine Laboratories, Inc., Boonton, N. J.
 Ballastan Corp., Fort Wayne, Ind.
 Baltic Metal Products Co., 120 Sutton St., Brooklyn, 22, N. Y.
 Barber-Colman Co., Dept. 766, Rockford, Ill.
 Barber Labs., Alfred W., 32-44 Francis Lewis Blvd., Flushing, N. Y.
 Barco Chemical Products Co., 701-703 S. LaSalle St., Chicago 5, Ill.
 Barco, Inc., Box 1222, Milwaukee 1, Wis.
 Barden Corp., E. Franklin St., Danbury, Conn.
 Barium & Chemicals, Inc., Willoughby, Ohio.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 Barnes Co., Wallace, Div. of Associated Spring Corp., Bristol, Conn.
 Barnes Development Co., 213 W. Baltimore Pike, Lansdowne, Pa.
 Barnes-Gibson-Raymond Division, 40300 Plymouth Rd., Plymouth, Mich.
 Barnes Metal Products Co., 4425 W. 16th St., Chicago 23, Ill.
 Barnstead Still & Sterilizer Co., Inc., 84 Lanesville Terrace, Boston 31, Mass.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
 Barrett Co., Leon J., The, 1776 Grafton Rd., Worcester 1, Mass.
 Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Barrett Varnish Co., 1532 S. 50th Court, Cicero 50, Ill.
 Barry Controls, Inc., 711 Pleasant St., Watertown 72, Mass.
 Bart Mfg. Corp., 227 Main St., Belleville, N. J.
 Barwood Electronics, Inc., 921 E. Broadway, Glendale 5, Calif.
 Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
 Basic Tool Engineering, Inc., 4156 S. Main St., Los Angeles, Calif.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
 Bassett Inc., Rex, 1314 N. E. 17th Court P. O. Box 7127, Fort Lauderdale, Fla.
 Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
 Beach-Russ Co., 50 Church St., New York 7, N. Y.
 Bead Chain Manufacturing Corp., The, 110 Mountain Grove St., Bridgeport 5, Conn.
 Bean & Co., Morris, Yellow Springs, Ohio.
 Beaver Gear Works, Inc., 1034 Parmele St., Rockford 11, Ill.
 Becker Electronics Mfg. Corp., Horton & Rockaway Aves., Valley Stream, N. Y.
 Beckman Inc., Arnold O., 1020 Mission St., South Pasadena, Calif.
 Beckman & Whitley, Inc., 913 San Carlos Ave., San Carlos, Calif.
 Beck's Inc., 298-300 E. Fifth St., Saint Paul 1, Minn.
 Beede Electrical Instrument Co., Inc., Penacook, N. H.
 Behlman Engineering Co., 114 S. Hollywood Way, Burbank, Calif.
 Bekey Electric Co., Inc., 1327 S. Main St., Los Angeles 15, Calif.
 Bel Fuse Inc., 311 Mountain Road, Union City, N. J.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Belleaire Electronics, Inc., 62 White St., Red Bank, N. J.
 Belltron Mfg. Co., Inc., 400 Hoover Ave., Bloomfield, N. J.
 Belock Instrument Corp., 111-01 14th Ave., College Point 56, N. Y.
 Beltone Hearing Aid Co., 2900 W. 36th St., Chicago, 32, Ill.
 Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
 Bendix Aviation Corp., Montrose Div., South Montrose, Pa.
 Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.
 Bendix Aviation Corp., York Div., York, Pa.
 Bendix Computer Division, Bendix Aviation Corp., 5630 Arbor Vitae St., Los Angeles 45, Calif.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Bennett Co., Inc., R. P., Frederick, Md.
 Bennett Mfg. Co., Alden, N. Y.
 Bennett Products Mfg. Co., P. O. Box 1055, Palo Alto, Calif.
 Benson-Lehner Corp., 11930 W. Olympic Blvd., Los Angeles 64, Calif.
 Bentley-Harris Mfg. Co., Conshohocken 13, Pa.
 Berg Mfg. Corp., 142 Reno Ave., New Cumberland, Pa.
 Bergen Laboratories, 247 Crooks Ave., Clifton, N. J.
 Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
 Berkeley Division, Beckman Instruments, Inc., 2200 Wright Ave., Dept G-13, Richmond 3, Calif.
 Berkshire Laboratories, 580 Bank Village, Greenville, N. H.
 Berlant Concertone-Audio Div. of American Electronics Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
 Bernco Engineering Corp., 2320 S. Tibbs Ave., Indianapolis, Ind.
 Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.
 Beryllium Corp., The, Reading, Pa.
 Best Manufacturing Co., Inc., 1200 Grove St., Irvington 11, N. J.
 Beta Corp., P. O. Box 8625, Richmond, Va.

Beta Electric Div. of Sorensen Co., Inc., 333 E. 103rd St., New York 23, N. Y.
 Bettcher Plastics Co., Portland, Ore.
 Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.
 Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
 Bigelow Mfg. Corp., 225 W. Bigelow St., Newark 8, N. J.
 Biggs Co. Carl H., 2225 Barry Ave., West Los Angeles 64, Calif.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bingham Mfg. Co., J. F., 69 Bay State Rd., Lawrence Mass.
 Bird Co., Richard H., 1 Spruce St., Waltham, Mass.
 Bird Electronic Corp., 1800 E. 38th St., Cleveland 14, Ohio.
 Birdair Structures Inc., 2900 Larkin St., Buffalo 10, N. Y.
 Birdsell Mfg. Co., Inc., 750 San Antonio Rd., Palo Alto, Calif.
 Birmingham Sound Reproducers, Ltd., Monarch Works, Old Hill, Powke Lane, Staffs, England.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Birtcher Corp., 4371 Valley Blvd., Los Angeles 32, Calif.
 Bischoff Die & Engraving, 1405 16th St., Racine, Wis.
 Bishop & Co., J., Platinum Works, Malvern, Pa.
 Bishop Mfg. Corp., 10 Canfield Rd., Cedar Grove, N. J.
 Blitwax Corp., 3445 Howard St., Skokie, Ill.
 Blackstone Corp., 1111 Allen St., Jamestown, N. Y.
 Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.
 Blaw-Knox Co., Blaw-Knox Bldg., 300 Sixth Ave., Pittsburgh 22, Pa.
 Bliley Electric Co., Union Station Bldg., Erie, Pa.
 Bliss Electronic Corp., Box 366, Sussex, N. J.
 Blockson & Co. Michigan City, Ind.
 Blonder-Tongue Laboratories, Inc., 9-25 Alling St., Newark 2, N. J.
 Blutworth Marine Div., Kearfott Co., Inc., 92 Gold St., New York 38, N. Y.
 Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.
 Bodine Electric Co., Ohio St. & Oakley Blvd., Chicago 12, Ill.
 Bodnar Industries, Inc., 238 Huguenot St., New Rochelle, N. Y.
 Boehme, Inc., H. O., 915 Broadway, New York 10, N. Y.
 Boesch Mfg. Corp., Danbury, Conn.
 Bogart Mfg. Corp., 315 Siegel St., Brooklyn 6, N. Y.
 Bogen Co., Inc., David, P. O. Box 500, Paramus, N. J.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bolling Industries, Inc., 1117 N. Main Ave., Scranton 2, Pa.
 Bolta Products Div., General Tire & Rubber Co., Lawrence, Mass.
 Bomac Laboratories, Inc., Salem Rd., Beverly, Mass.
 Bomyte Co., The, Green St., Silverdale, Pa.
 Bond Electronics Corp., 60 Springfield Ave., Springfield, N. J.
 Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif.
 Bonny Mfg. Corp., 339 Auburn St., Auburndale, Mass.
 Boonton Electronics Corp., 738 Speedwell Ave., Morris Plains, N. J.
 Boonton Molding Co., Boonton, N. J.
 Boonton Radio Corp., Boonton, N. J.
 Booth Co., Arthur E., 265 S. Alexandria Ave., Los Angeles, Calif.
 Boots Aircraft Nut Corp., Newton Ave., Norwalk, Conn.
 Borden Co., The, Chemical Div., 350 Madison Ave., New York 17, N. Y.
 Borden Co., Resinite Dept., Box 1589, Santa Barbara, Calif.
 Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., Box 10, Morristown, N. J.
 Borg Equipment Division, The George W. Borg Corp., Janesville, Wis.
 Borg-Warner Corp., Pesco Products Div., 24700 North Miles Rd., Bedford, Ohio.
 Borthig Co., Inc., George C., P. O. Box 11A, East Rutherford, N. J.
 Boston Felt Co., 210 South St., Boston 11, Mass.
 Boston Insulated Wire & Cable Co., 63 Bay St., Boston 25, Mass.
 Boulfin Instrument Corp., 10 First St., Pelham, N. Y.
 Bourns Laboratories, Inc., 6135 Magnolia Ave., Riverside, Calif.
 Bow Solder Products Co., Inc., 251 Freeman St., Brooklyn 22, N. Y.
 Bowers Battery & Spark Plug Co., Box 1262, Reading, Pa.
 Bowmar Instrument Corp., 2415 Pennsylvania St., Fort Wayne, Ind.
 Bowser Technical Refrigeration Div. of Bowser, Inc., Eagle St., Terryville, Conn.
 Boyle Metalcraft Corp., 150 Sullivan St., Brooklyn 31, N. Y.
 Bozak Mfg. Co., R. T., The, Box 966, Darien, Conn.
 Brach Div. Electronic Research, General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Bracke-Seib X-Ray Co., Inc., 16 Pelham Bay Parkway, Pelham Manor, N. Y.
 Bradford Components, Inc., Bradford, Pa.
 Bradley Industries, 1650-58 N. Damen Ave., Chicago 47, Ill.
 Bradley Labs., Inc., 170 G Columbus Ave., New Haven 11, Conn.
 Brady Co., W. H., 727 W. Glendale Ave., Milwaukee 12, Wis.
 Brainin Co., C. S., 320 Washington St., Mt. Vernon, N. Y.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Brand & Co., Inc., William, 41 North St., Willimantic, Conn.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
 Branson Corp., Jefferson Rd., Whippany, N. J.

Branson Instruments, Inc., 1 Brown House Rd., Stamford Conn.
 Branson Ultrasonic Corp., 1 Brown House Rd., Stamford, Conn.
 Braun Tool & Instrument Co., Inc., H. 140 Fifth Ave., Hawthorne, N. J.
 Breeze Corps., Inc., 700 Liberty Ave., Union, N. J.
 Breon Laboratories, 1520 Evergreen Rd., Williamsport, Pa.
 Brevil Products Corp., 601 W. 26th St., New York 1, N. Y.
 Brew & Co., Inc., Richard D., Concord, N. H.
 Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
 Briggs Associates Inc., 10 Dekalb St., Norristown, Pa.
 Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave., & 4th St., New Hyde Park, N. Y.
 Bright Star Industries, 600 Getty Ave., Clifton, N. J.
 Brillhart Plastics Corp., Old Country Rd., Mineola, N. Y.
 Brilmayer Labs, Inc., E. W., 86 Fulton St., New York 38, N. Y.
 Bristol Brass Co., 580 Broad St., Bristol, Conn.
 Bristol Co., The, P. O. Box 1790 EBG, Waterbury 20, Conn.
 Bristol Motor Division, Vocaline Company of America, Inc., Old Saybrook, Conn.
 British Electronics Sales Co., Inc., Oakland Garden St., Flushing 64, N. Y.
 British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
 British Radio Electronics Ltd., 1833 Jefferson Place, N. W., Washington 6, D. C.
 Broadcast Equipment Specialties Corp., P. O. Box 149, Beacon, N. Y.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
 Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
 Bruel & Kjaer, Naerum, Denmark.
 Brunling Co., Inc., Charles, 4700 Montrose Ave., Chicago 41, Ill.
 Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.
 Brunswick Instruments, P. O. Box 813, New Brunswick, N. J.
 Brush Beryllium Co., The, 4301 Perkins Ave., Cleveland 3, Ohio.
 Brush Electronics Co., 3405 Perkins Ave., Cleveland 14, Ohio.
 Brys Instrument Co., 7026 Sixth Ave., Brooklyn 9, N. Y.
 Buchanan Electrical Products Corp., 223 U. S. Route 22, Hillside, N. J.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 Buckbee Mears Co., Tont Bldg., St. Paul 1, Minn.
 Buckeye Bobbin Co., 12200 Sprecher Ave., Cleveland 11, Ohio.
 Bud Radio, Inc., 2118 E. 55th St., Cleveland 3, Ohio.
 Buda Div., Allis-Chalmers Mfg. Co., Milwaukee 1, Wis.
 Budd-Stanley Co., Inc., 43-01 22nd St., Long Island City 1, N. Y.
 Budelman Radio Corp., 376 Fairfield Ave., Stamford, Conn.
 Buffalo Electronics Corp., 37 Franklin St., Buffalo 2, N. Y.
 Buggie, Inc., H. H., P. O. Box 817, Toledo 1, Ohio.
 Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
 Bulova Research & Development Labs., Inc., 62-10 Woodside Ave., Woodside, N. Y.
 Bulova Watch Co., Inc., Electronics Div., 40-06 62nd St., Woodside 77, N. Y.
 Bureau of Engraving, Inc., Industrial Div., 500 S. Fourth St., Minneapolis 15, Minn.
 Burgess Battery Co., Freeport, Ill.
 Burke & James Inc., 321 S. Wabash Ave., Chicago 4, Ill.
 Burken Lamination Corp., 811 Whittier St., Bronx 59, N. Y.
 Burndy Corporation, Norwalk, Conn.
 Burnell & Co., Inc., 10 Pelham Parkway, Pelham, N. Y.
 Burnley Battery & Mfg. Co., Clay St., North East, Pa.
 Burr-Brown Research Corp., Route 4, Box 139, Tucson, Ariz.
 Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia 23, Pa.
 Burroughs Corp., Electronic Tube Div., P. O. Box 1226, Plainfield, N. J.
 Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
 Bussmann Mfg. Co., St. Louis 7, Mo.

C

CBC Electronics Co., Inc., 2601 Howard St., Philadelphia 33, Pa.
 CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
 CG Electronics Div. of Gulton Industries, Inc., 305 Dallas St., N.E., Albuquerque, N. M.
 C.G.S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
 C & H Supply Co., 415 E. Beach Ave., Inglewood 3, Calif.
 C-W Mfg. Co., Box 2065, El Monte, Calif.
 Cable Specialist of Conn., 474 Prospect Ave., Hartford, Conn.
 Caddell-Burns Mfg. Co., 40 E. Second St., Mineola, N. Y.
 Cado Manufacturing Div. of Electromation Co., 1646 Eighteenth St., Santa Monica, Calif.
 Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
 Caig Laboratories, 46 Stanwood Rd., New Hyde Park, N. Y.
 Calbest Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Cal-Connector Co., 7414 Varna Ave., North Hollywood, Calif.
 Caledonia Electronics & Transformer Co., Caledonia, N. Y.
 Caldyne Co., The, 120 Cross St., Winchester, Mass.

Califone Corp., 1041 N. Sycamore Ave., Hollywood, 38, Calif.
 California Bent Glass Corp., Torrance, Calif.
 California Computer Products, 3927 W. Jefferson Blvd., Los Angeles 16, Calif.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
 California Technical Industries, 1421 Old County Rd., Belmont, Calif.
 Calresin Corp., 4543 Brazil St., Los Angeles 39, Calif.
 Caltron Products Co., 3518 W. Pico Blvd., Los Angeles 19, Calif.
 Cal-Tronics Corp., 11307 Hindry Ave., Los Angeles 45, Calif.
 Cambridge Instrument Co., Inc., 3633 Grand Central Terminal, New York 17, N. Y.
 Cambridge Pattern Works, Inc., 55 First St., Cambridge 41, Mass.
 Cambridge Thermionic Corp., 445 Concord Ave., Cambridge 38, Mass.
 Camcar Screw & Mfg. Co., Div. of Textron Inc., 600 18th Ave., Rockford, Ill.
 Camera Mart Inc., 1845 Broadway, New York 23, N. Y.
 Camloc Fastener Corp., 22 Spring Valley Rd., Paramus, N. J.
 Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Canadian Radium & Uranium Corp., 630 Fifth Ave., New York 20, N. Y.
 Cannon Co., C. F., Springwater, N. Y.
 Cannon Electric Co., 3208 Humboldt St., Los Angeles 31, Calif.
 Cannon-Muskegon Corp., 2875 Lincoln St., Muskegon, Mich.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Capitol Machine Co., The Switch Div., 36 Balmforth Ave., Danbury, Conn.
 Capps & Co., Inc., 20 Addison Place, Valley Stream, N. Y.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
 Carboneau Industries, Inc., 100 Lexington Ave., S. W., Grand Rapids, Mich.
 Carborundum Metals Co., The P. O. Box 32, Akron, N. Y.
 Cardwell Co., Allen D., The 97 Whiting St., Plainview, Conn.
 Carling Electric Inc., 505 New Park Ave., West Hartford 10, Conn.
 Carlson & Nicholson, Inc., 497 Maynard Drive, Buffalo 21, N. Y.
 Carol Cable Div. of Crescent Co., Inc., 20 Central Ave., Pawtucket, R. I.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
 Carpenter Steel Co., 142 West Bern St., Reading, Pa.
 Carpenter Steel Co., Webb Wire Div., New Brunswick, N. J.
 Carroll Pressed Metal Co., 133 Dewey St., Worcester, Mass.
 Carron Mfg. Co., 415 S. Aberdeen St., Chicago, Ill.
 Carter Mfg. Corp., 23 Washington St., Hudson, Mass.
 Carter Motor Co., 2746 W. George St., Chicago 18, Ill.
 Carter Parts Co., 3401 Madison, Skokie, Ill.
 Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
 Cass Machine Co., 691 Antoinette St., Detroit 2, Mich.
 Cast Optics Corp., 123-125 Newman St., Hackensack, N. J.
 Catalin Corp. of America, 1 Park Ave., New York 16, N. Y.
 Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 335 N. Newport Blvd., Newport Beach, Calif.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
 Celanese Corp. of America, Plastics Div., 290 Ferry St., Newark 5, N. J.
 Celco, Island Ave., Mahwah, N. J.
 Cellusuede Products, Inc., 540 N. Madison St., Rockford, Ill.
 Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
 Central Electronic Manufacturers Inc., 2 Richwood Place, Denville, N. J.
 Central Research Laboratories, Inc., Red Wing, Minn.
 Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
 Central Screw Co., 3501 Shields Ave., Chicago 9, Ill.
 Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill.
 Centralab Div., Globe-Union Inc., 914Y E. Keefe Ave., Milwaukee 1, Wis.
 Century Electric Co., 1806 Pine St., St. Louis 3, Mo.
 Century Electronics & Instruments, Inc., P. O. Box 6216, Pine Station, Tulsa 10, Okla.
 Century Engineers, Inc., Burbank, Calif.
 Ceramaseal, Inc., Box 25, New Lebanon Conn., N. Y.
 Ceramex Corp., 5905 Broadway, New York 63, N. Y.
 Cerro de Pasco Sales Corp., 300 Park Ave., New York 22, N. Y.
 Chadwick Helmuth Co., 472 E. Duarte Rd., Monrovia, Calif.
 Channel Master Co., Ellenville, N. Y.
 Chart-Pak, Inc., Leeds, Mass.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Chase Electronics Inc., 82-31 51st Ave., Elmhurst, N. Y.
 Chase-Shawmut Co., Box 390, Newburyport, Mass.
 Chassis-Trak, Inc., 6248 E. Iona Rd., Indianapolis 3, Ind.
 Chatham Electronics Div. of Tung-Sol Electric, Inc., 630 W. Mt. Pleasant Ave., Livingston, N. J.
 Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
 Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
 Chemical Products Corp., King Philip Rd., East Providence, R. I.
 Chemplast Inc., 3 Central Ave., East Newark, N. J.
 Chesapeake Instrument Corp., Shadyside, Md.

Chester Cable Corp., Hill St., Chester, N. Y.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Chicago Condenser Corp., 3255 W. Armitage Ave., Chicago 47, Ill.
 Chicago Die Mold Div. of U. S. Rubber Co., 4300 New Haven Ave., Fort Wayne 4, Ind.
 Chicago Electronic Engineering Co., 3223 W. Armitage Ave., Chicago 47, Ill.
 Chicago Electronic Laboratories, 1214 W. Madison St., Chicago 7, Ill.
 Chicago Expansion Bolt Co., 1338 W. Concord Place, Chicago 22, Ill.
 Chicago Magnetic Control Co., 1616 Damon Ave., Chicago, Ill.
 Chicago Miniature Lamp Works, 1500 N. Ogden Ave., Chicago 10, Ill.
 Chicago Rivet & Machine Co., Bellwood, Ill.
 Chicago Screw Co., The Bellwood, Ill.
 Chicago Standard Transformer Corp., 3521 Addison St., Chicago, Ill.
 Chicago Telephone of California, Inc., 105 Pasadena Ave., South Pasadena, Calif.
 Chicago Telephone Supply Corp., 1142 W. Beardsley Ave., Elkhart, Ind.
 Christie Electric Corp., 3410 W. 67th St., Los Angeles 43, Calif.
 Churchill Lighting Corp., 344 Franklin St., Melrose 76, Mass.
 Ciba Co., Inc., Plastics Div., Kimberton, Pa.
 Cinch Mfg. Corp., 1026 S. Homan Ave., Chicago 24, Ill.
 Cinema Engineering Div., Aerovox Corp., 1100 Chestnut St., Burbank, Calif.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Circon Component Co., Santa Barbara Municipal Airport, Goleta, Calif.
 Circuit Instruments, Inc., 2801 Anvil St. North, P. O. Box 1438, St. Petersburg, Fla.
 Clairex Corp., 50 W. 26th St., New York 10, N. Y.
 Clare & Co., C. P., 3101 Pratt Blvd., Chicago 45, Ill.
 Claremont Tube Corp., 36-02 35th Ave., Long Island City, N. Y.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Clark Crystal Co., Farm Rd., Marlboro, Mass.
 Clark Electronic Labs., Box 165, Palm Springs, Calif.
 Clarostat Mfg. Co., Inc., Dover, N. H.
 Clary Corp., San Gabriel, Calif.
 Clauss Cutlery Co., Fremont, Ohio.
 Clear Beam Antenna Co., 21341 Roscoe Blvd., Canoga Park, Calif.
 Clearprint Paper Co., 1482 67th St., Emeryville, Calif.
 Clegg Laboratories Div. of Clegg, Inc., Hanover & Ridge-dale Aves., Morristown, N. J.
 Cleveland Container Co., The, 6201 Barberton Ave., Cleveland 2, Ohio.
 Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
 Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
 Clevite Transistor Products, A Div. of Clevite Corp., 241-257 Crescent St., Waltham 54, Mass.
 Clifford Mfg. Co., Grove St., Waltham, Mass.
 Clifton Mfg. Co., Inc., 20 N. Springfield Rd., Clifton Heights, Pa.
 Clifton Precision Products Co., Inc., Broadway at Maple Ave., Clifton Heights, Pa.
 Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
 Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.
 Clough-Brengle Co., 6014 N. Broadway, Chicago, Illinois.
 Clover Industries, Inc., 584 Young St., Tonawanda, N. Y.
 Coast Coil Co., 5333 W. Washington Blvd., Los Angeles 16, Calif.
 Coaxial Connector Co., Inc., 37 North 2nd Ave., Mt. Vernon, N. Y.
 Cobehn, Inc., 100 Passaic Ave., Caldwell, N. J.
 Cohan-Epner Co., Inc., 142 W. 14th St., New York 11, N. Y.
 Cohn Corp., Sigmund, 121 S. Columbus Ave., Mt. Vernon, N. Y.
 Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
 Coil Winding Equipment Co., 109 Audrey Ave., Oyster Bay, N. J.
 Colcraft, Inc., Cary, Ill.
 Coils-Electronics Co., 2939-49 N. 2nd St., Philadelphia 33, Pa.
 Colber Corp., The, 26 Buffington St., Irvington, N. J.
 Cole Radio Works, 86 Westville Ave., Caldwell, N. J.
 Coleman Engineering Co., Inc., 6040 W. Jefferson Blvd., Los Angeles 16, Calif.
 Coleman Instruments, Inc., 318 Madison St., Maywood, Ill.
 Collaro, Ltd., (Rockbar Corp.), 650 Halstead Ave., Mamaroneck, N. Y.
 Collection Corp., 304 E. 45th St., New York 17, N. Y.
 Collins Electronics Mfg. Corp., Stevensville, Md.
 Collins Radio Co., Cedar Rapids, Iowa.
 Collyer Insulated Wire Co., 249 Roosevelt Ave., Pawtucket, R. I.
 Colman Tool & Machine Co., P. O. Box 7026, Amarillo, Texas.
 Color Television, Inc., 1421 Old County Rd., Belmont, Calif.
 Colorado Research Corp., 4697 E. Evans Ave., Denver 22, Colo.
 Coloritone Electronics, Inc., 200 Frank Rd., Hicksville, N. Y.
 Columbia Electric Mfg. Co., 4519 Hamilton Ave., N. E., Cleveland 14, Ohio.
 Columbia Metal Box Co., 260 E. 143rd St., New York, N. Y.
 Columbia Technical Corp., 61-02 31 Ave., Woodside 77, N. Y.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.

Columbian Carbon Co., Mapico Color Unit, 380 Madison Ave., New York 17, N. Y.
 Colvin Laboratories, Inc., 364 Glenwood Ave., East Orange, N. J.
 Comar Electric Co., 3349 W. Addison St., Chicago 18, Ill.
 Combustion Control Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Cominco, Metal Sales Div., 215 St. James St., W., Montreal, Canada.
 Commercial Plastics Co., 945 George St., Chicago 14, Ill.
 Communication Accessories Co., Red Bridge Rd., Hickman Mills, Mo.
 Communication Measurements Lab. Inc., 350 Leland Ave., Plainfield, N. J.
 Communication Products Co., Inc., Marlboro, N. J.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Community Engineering Corp., Box 824, State College, Pa.
 Computer Control Co., Inc., 92 Broad St., Babson Park 57, Mass.
 Computer Instruments Corp., 92 Madison Ave., Hempstead, N. Y.
 Computer-Measurement Corp., 5528 Vineland Ave., North Hollywood, Calif.
 Conant Labs., 6500 O St., Lincoln 5, Nebraska.
 Concord Control Inc., 1282 Soldiers Field Rd., Boston 35, Mass.
 Condenser Machinery Co., Stamford, Conn.
 Condenser Products Div., New Haven Clock & Watch Co., 140 Hamilton St., New Haven, Conn.
 Condr Radio Mfg. Co., 4068 E. Paseo Grande, Tucson 12, Ariz.
 Conn Ltd., C. G., 1101 E. Beardsley Ave., Elkhart, Ind.
 Connecticut Hard Rubber Co., 407 East St., New Haven 9, Conn.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Connector Corp., 6025 N. Keystone Ave., Chicago, Ill.
 Connector Corp. of America, 3223 Burton Ave., Burbank, Calif.
 Conrac, Inc., Glendora, Calif.
 Conrad, Inc., 141 Jefferson St., Holland, Mich.
 Conrad & Mosek, 2 Borden Ave., Long Island City 1, N. Y.
 ConRay Corp., 29 W. Apple St., Dayton 2, Ohio.
 Consolidated Avionics, Inc., 66 Brooklyn Ave., Westbury, N. Y.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Consolidated Electrodynamics Corp., Rochester Div., Rochester 3, N. Y.
 Consolidated Molded Products Corp., Scranton 2, Pa.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
 Consolidated Resistance Co. of America Inc., 44 Prospect St., Yonkers, N. Y.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Illinois.
 Constantin & Co., L. L., Route #46, Lodi, N. J.
 Continental Can Co., Inc., 100 E. 42nd St., New York 17, N. Y.
 Continental Carbon, Inc., 13900 Lorain Ave., Cleveland 11, Ohio.
 Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 Continental Connector Corp., 34-63 56th St., Woodside 77, N. Y.
 Continental-Diamond Fibre Corp., Newark 100, Delaware.
 Continental Electric Co., 6 N. Michigan Ave., Chicago 2, Ill.
 Continental Electric Co., Inc., 334 Ferry St., Newark 5, N. J.
 Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Texas.
 Continental Felt Co., 22 W. 15th St., New York 11, N. Y.
 Continental Wire Sales Corp., Wallingford, Conn.
 Control Corp., 718 Central Ave., Minneapolis 14, Minn.
 Control Devices, Inc., 8299 E. Nine Mile Rd., Van Dyke, Mich.
 Control Electronics Co., Inc., 1925 New York Ave., Huntington Station, N. Y.
 Control Products, Inc., 306 Sussex St., Harrison, N. J.
 Controlled Atmosphere Enclosures Corp., 230-11 141st Ave., Springfield Gardens 13, N. Y.
 Cook Ceramic Mfg. Co., 501 Prospect St., Trenton 1, N. J.
 Cook Co., Frank R., 36 S. Santa Fe Drive, Denver 23, Colo.
 Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
 Cook Laboratories, 101 Second St., Stamford, Conn.
 Co-Operative Industries, Inc., 100 Oakdale Rd., Chester, N. J.
 Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
 Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
 Coors Porcelain Co., 600 Ninth St., Golden, Colo.
 Copperwell Steel Co., Wire & Cable Div., Glassport, Pa.
 Coradio, Inc., 196 Albion Ave., Paterson, N. J.
 Corbett Science Laboratories, F. W., 3117 Venice Blvd., Los Angeles 19, Calif.
 Cords Ltd., Div. of The Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
 Cornell-Dubilier Electric Corp., South Plainfield, N. J.
 Corning Glass Works, Corning, N. Y.
 Cornish Wire Co., 50 Church St., New York 7, N. Y.
 Corrugated Paper Products, Inc., 2233 Utica Ave., Brooklyn 34, N. Y.
 Corry-Jamestown Mfg. Co., Corry, Pa.
 Corson Electric Mfg. Corp., 540 39th St., Union City, N. J.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Cosa Corp., 405 Lexington Ave., New York 17, N. Y.
 Cosmic Radio Corp., 853 Whittier St., New York 59, N. Y.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.

Coto-Coil Co., Inc., 65 Pavilion Ave., Providence 5, R. I.
 Cottrell Paper Co., Inc., Fall River, Mass.
 Couch Ordnance, Inc., Relay Div., 3 Arlington St., North Quincy, Mass.
 Counting Instruments, Ltd., 5, Elstree Way, Boreham Wood, Hertfordshire, England.
 Cox & Co., Inc., 115 E. 23rd St., New York 10, N. Y.
 Coxhead Co., Ralph C., Newark, N. J.
 Craft Laboratories, P. O. Box 606, Westfield, N. J.
 Craig Systems, Inc., Danvers, Mass.
 Cramer Controls Corp., Box 13, Centerbrook, Conn.
 Cramer Posture Chair Co., 1205 Charlotte St., Kansas City 6, Mo.
 Crane Packing Co., 6402 Oakton St., Morton Grove, Ill.
 Creative Electronics Corp., 94 Lincoln Ave., Stamford, Conn.
 Crescent Engineering & Research Co., 5440 N. Peck Rd., El Monte, Calif.
 Crest Transformer Corp., 1834-36 W. North Ave., Chicago 22, Ill.
 Crittenden Transformer Co., 1220 Nadeau St., Los Angeles, Calif.
 Croname, Inc., 1747 Grace St., Chicago 13, Ill.
 Cro-Plate Co., Inc., The, 747 Windsor St., Hartford 1, Conn.
 Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y.
 Crosby-Laughlin Division, P. O. Box 570, Fort Wayne, Ind.
 Cross Co., H., 15 Beekman St., New York 38, N. Y.
 Crowley Div. of Aerovox Corp., 1 Central Ave., West Orange, N. J.
 Crown Industrial Products Co., 713 Amsterdam Ave., Woodstock, Ill.
 Crucible Steel Company of America, P. O. Box 1558, Pittsburgh 30, Pa.
 Cryco, Inc., 1138 Mission St., South Pasadena, Calif.
 Crystal-X Corp., 403 Lenni Rd., Lenni Mills 2, Pa.
 Cubic Corp., 5575 Kearny Villa Rd., San Diego 11, Calif.
 Cudner & O'Connor Co., 4035 W. Kinzie Ave., Chicago 24, Ill.
 Cunningham Industries, Inc., 56 Hubbard Ave., Stamford, Conn.
 Cunningham Son & Co., Inc. James, 33 Litchfield St., Rochester, N. Y.
 Curtis Development & Mfg. Co., 3226 N. 33rd St., Milwaukee 16, Wis.
 Curtis-Wright Corp., Electronics Div., Plant #2, Central Ave., Carlstadt, N. J.
 Curtis-Wright Corp., Industrial Scientific Products Div., P. O. Box 270, Caldwell, N. J.
 Custom Components, Inc., Caldwell, N. J.
 Custom Gear Co., 648 College St., South Bend 28, Ind.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Cutler Metal Products Co., 1025 Line St., Camden, N. J.
 Cybergor, Inc., Electronics, 1705 W. 135th St., Gardena, Calif.
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
 Cyclotron Specialties Co., Moraga 8, Calif.

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D & R, Ltd., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif.
 D & R Plastic Welders Inc., Hazardville, Conn.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Daco Instrument Co., Tillary & Prince Sts., Brooklyn 1, N. Y.
 Dage Electric Co., 67 N. Second St., Beech Grove, Ind.
 Dage Television Div. of Thompson Products, Inc., W. 10th St., Michigan City, Ind.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Dale Products, Inc., Box 136, Columbus, Neb.
 Dallons Laboratories, Inc., 5066 Santa Monica Blvd., Los Angeles 29, Calif.
 Dalmo Victor Co., Div. of Textron, Inc., 1515 Industrial Way, Belmont, Calif.
 Dalmator Co., 1375 Clay St., Santa Clara, Calif.
 Dalmatron Co., 534 Laurel St., San Carlos, Calif.
 Danbury-Knudsen, Inc., P. O. Box 170, Danbury, Conn.
 Dane Electronic Labs., Inc., P. O. Box 209, Salem, Mass.
 Dano Electric Co., Main St., Winsted, Conn.
 Dante Electric Mfg. Co., Bantam, Conn.
 Darco Industries, Inc., Gyro Dynamics Div., 2151 E. Rosencrans Ave., El Segundo, Calif.
 Datascan Inc., 48 Notch Rd., Little Falls, N. J.
 Datran Electronics, 3615 Aviation Blvd., Manhattan Beach, Calif.
 Daubert Chemical Co., 333 N. Michigan Ave., Chicago 1, Ill.
 Daven Co., Route 10, Livingston, N. J.
 Davies Laboratories Div., Minneapolis-Honeywell Regulator Co., 10721 Hanna St., Beltsville, Md.
 Davies Molding Co., Harry, 1428 N. Wells St., Chicago 10, Ill.
 Davis Electric Co., Cape Girardeau, Mo.
 Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
 Davis-K Products Co., 135 W. 29th St., New York 1, N. Y.
 Daystrom Electric Corp., 807 Main St., Poughkeepsie, N. Y.
 Daystrom Instrument, Archbald, Pa.
 Daystrom Nuclear Div. of Daystrom, Inc., P. O. Box 437, West Caldwell N. J.
 Daystrom Pacific Corp., 9320 Lincoln Blvd., Los Angeles 45, Calif.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Dearborn Electronic Laboratories, Inc., 231 S. LaSalle St., Chicago 4, Ill.
 Decade Instrument Co., Box 153, Caldwell, N. J.

Decatur Electronics Industries Corp., 203 Orinco Drive, Brightwater, N. Y.
 Decca Records, Inc., 50 W. 57th St., New York 19, N. Y.
 De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
 Dee Electric Co., 1101 N. Paulina St., Chicago 22, Ill.
 Defiance Engineering & Microwave Corp., Box 488, Beverly Airport, Beverly, Mass.
 Deitz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.
 DeJury-Amsco Corp., Northern Blvd. at 45th St., Long Island City 1, N. Y.
 Del Electronics Corp., 521 Homestead Ave., Mt. Vernon, N. Y.
 Delaware Products Co., 300 Broadway, Camden 3, N. J.
 Delco Radio Division, GM Corp., 700 E. Firmin St., Kokomo, Ind.
 Delevan Electronics Corp., Roycroft Campus, East Aurora, N. Y.
 Delmhorst Instrument Co., 601 Cedar St., Boonton, N. J.
 Delta Chemical Works, 21 W. 60th St., New York, N. Y.
 Delttime, Inc., 608 Fayette Ave., Mamaroneck, N. Y.
 Deltron, Inc., 2905 N. Leithgow St., Philadelphia 33, Pa.
 Deltronic Corp., 1507 Riverside Drive, Los Angeles 31, Calif.
 DeLux Coils, Inc., Wabash, Ind.
 DeMornay-Bonardi, Inc., 780 S. Arroyo Parkway, Pasadena, Calif.
 Denison Engineering Div., American Brake Shoe Co., 1160 Dublin Rd., Columbus 16, Ohio.
 Denson Electronics Corp., Ellington, Conn.
 Derringer Metallurgical Corp., 8127 Monticello Ave., Skokie, Ill.
 Design Tool Corp., 80 Washington St., New York 6, N. Y.
 Despatch Oven Co., Minneapolis, Minn.
 Detroit Controls Corp., Control Engineering Unit, 560 Providence Highway, Norwood, Mass.
 Detroit Diesel Engine Div. of General Motors Corp., 13400 W. Outer Drive, Detroit 28, Mich.
 Deutsch Co., The, Electrical Connector Div., 7000 Avalon Blvd., Los Angeles 3, Calif.
 Devco Engineering Inc., P. O. Box 387, Caldwell, N. J.
 Development Engineering Co., 9 Cross St., Norwalk, Conn.
 Devenco Inc., 150 Broadway, New York 38, N. Y.
 Devtron Engineering, 1 Winslow St., Redwood City, Calif.
 Dewey & Almy Chemical Co., Div. of W. R. Grace & Co., 62 Whittemore Ave., Cambridge 40, Mass.
 DeWitt Development Co., 3008 W. 127th St., Blue Island, Ill.
 Dial Products Co., 9 Avenue E, Bayonne, N. J.
 Dialight Corporation, 60 Stewart Ave., Brooklyn 37, N. Y.
 Diamond Antenna & Microwave Corp., 7 North Ave., Wakefield, Mass.
 Diamond Drill Carbon Co., The, 244 Madison Ave., New York 16, N. Y.
 Diamond Power Specialty Corp., Lancaster, Ohio.
 Diamond-Union Stamp Works, 81 Washington St., Boston 8, Mass.
 Diamond Wire & Cable Co., Sycamore, Ill.
 Diamonite Products Mfg. Co., Div. of U. S. Ceramic Tile Co., 1232 Cleveland Ave., N. W., Canton, Ohio.
 Dice Co., J. W., Englewood, N. J.
 Dictaphone Corp., 420 Lexington Ave., New York 17, N. Y.
 Diehl Manufacturing Co., Somerville, N. J.
 Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
 Dielectric Products Engineering Co., Inc., Raymond, Maine.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
 Dietz Design & Mfg. Co., Grandview 6, Mo.
 Dietzgen Co., Eugene, 2425 Sheffield Ave., Chicago, Ill.
 Dietrich Corp., Allen Blvd. & Grant Ave., Farmingdale, N. Y.
 Dilection Div. of The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif.
 Dilks Co., The, Seymour, Conn.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
 Dimco-Gray Co., 207 E. Sixth St., Dayton, Ohio.
 Dinion Coll Co., Inc., Caledonia, N. Y.
 Dit-Mco, Inc., Electronics Div., 911 Broadway, Kansas City 5, Mo.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Dixon Corporation, Bristol, R. I.
 Dmeter Mfg. Co., Inc., 22-24 Larkin Plaza, Yonkers 2, N. Y.
 Doeple Mfg. Co., Inc., Chas. Wm., 1956 Emerald Ave., Rossmoyne, Ohio.
 Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.
 Dolinko & Wilkins, Inc., 1901-7 Summit Ave., Union City, N. J.
 Dollar Co., Robert, Communications Equipment Div., 50 Drumm St., San Francisco 11, Calif.
 Dollin Corp., 640 S. 21st St., Irvington 11, N. J.
 Dondar Devices, 321 E. 6th St., Medford, Ore.
 Donnelly Mfg. Co., Div. of The Indian Co., 580 Winter St., Waltham 54, Mass.
 Donner Scientific Co., 888 Galindo St., Concord, Calif.
 Dornier Industries, 3418 N. Milwaukee Ave., Chicago, 41, Ill.
 Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass.
 Dorne & Margolin, Inc., 30 Sylvester St., Westbury, N. Y.
 Dorsett Laboratories, Inc., 401 E. Boyd St., Box 862, Norman, Okla.

Doty Acoustical Electronic Labs., Inc., 431 Broome St., New York 13, N. Y.
 Double "E" Products Co., 216 Standard St., El Segundo, Calif.
 Douglas Microwave Co., Inc., 252 E. Third St., Mt. Vernon, N. Y.
 Douglas Radio Labs., 176 Norfolk Ave., Boston 19, Mass.
 Dow Chemical Co., Midland, Mich.
 Dow Corning Corp., Midland, Mich.
 Drake Electric Works, 3656 Lincoln Ave., Chicago 13, Ill.
 Drake Mfg. Co., 1713 W. Hubbard St., Chicago 22, Ill.
 Drakenfield & Co., Inc., B. F., Box 519, Washington, Pa.
 Dremel Mfg. Co., 2300 18th St., Racine, Wis.
 Dressen-Barnes Corp., 250 N. Vinedo Ave., Pasadena 8, Calif.
 Dresser Electric Co., 942 E. Larned St., Detroit 7, Mich.
 Dresser-Ideco Co., 875 Michigan Ave., Columbus 8, Ohio.
 Driver Co., Wilbur B., 1875 McCarter Highway, Newark 4, N. J.
 Driver-Harris Co., 201 Middlesex St., Harrison, N. J.
 Dubrow Development Co., 235B Penn St., Burlington, N. J.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Dudek & Bock Spring & Mfg. Co., 4018 W. Grand Ave., Chicago 51, Ill.
 Dukane Corp., St. Charles, Ill.
 Dumont-Airplane & Marine Instruments, Inc., 15 William St., New York 5, N. Y.
 DuMont Laboratories, Inc., Allen B., 750 Bloomfield Ave., Clifton, N. J.
 Dunlap Electronics, 764 9th St., Des Moines, Iowa.
 Dunlee Corp., 4560 W. Congress St., Chicago 24, Ill.
 Dunn Engineering Associates, Inc., 186 Massachusetts Ave., Cambridge 39, Mass.
 Duntun Co., M. W., 7 Goff St., Providence, R. I.
 Duotone Co., Inc., Keyport, N. J.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 Dura Plastics of New York, Inc., 303 Fifth Ave., New York 16, N. Y.
 Durakool, Inc., 1010 N. Main St., Elkhart, Ind.
 Duramark, Inc., 2 Secatoag Ave., Port Washington, N. Y.
 Durant Mfg. Co., 1912-A N. Buffum St., Milwaukee 1, Wis.
 Durez Plastics Div. of Hooker Electrochemical Co., 1921 Walck Rd., North Tonawanda, N. Y.
 Duro Specialty Co., Inc., 811 Boston St., Lynn, Mass.
 Durson Co., Dept. A-1, 10416 National Blvd., Los Angeles 34, Calif.
 Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H.
 Dyna-Empire, Inc., 1075 Stewart Ave., Garden City, N. Y.
 Dynac, Inc., 395 Page Mill Rd., Palo Alto, Calif.
 Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
 Dynamic Air Engineering Inc., 7412 Male Ave., Los Angeles 1, Calif.
 Dynamic Controls Co., 1955 Massachusetts Ave., Cambridge, Mass.
 Dynamic Gear Co., Inc., 20 Merrick Rd., Amityville, N. Y.
 Dynamic Instrument Corp., 59 New York Ave., Westbury, N. Y.
 Dynamics Instrumentation Co., Div. of Alberhill Corp., 1118 Mission St., South Pasadena, Calif.
 Dynamics Research Associates Div. of Universal Match Corp., 472 Paul Ave., Ferguson 21, Mo.
 Dynapcor Corp., 5150 Church St., Skokie, Ill.
 Dzus Fastener Co., Inc., Box 185, Babylon, N. Y.

E

EPM Corp., 570 Van Siclen Ave., Brooklyn, N. Y.
 ESC Corp., 534 Bergen Blvd., Palisades Park, N. J.
 E-Z Templates, P. O. Box 86424, Los Angeles 66, Calif.
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza S., Long Island City, N. Y.
 Eagle Pencil Co., 703 E. 13th St., New York, N. Y.
 Eagle Signal Corp., Moline, Ill.
 Eastern Air Devices, Inc., 385 Central Ave., Dover, N. H.
 Eastern Industries, Inc., 100 Skiff St., Hamden, Conn.
 Eastern Precision Resistor Corp., 675 Barbey St., Brooklyn, N. Y.
 Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
 Eastern Specialty Co., Philadelphia 40, Pa.
 Eastern Tool & Mfg. Co., 1 Montgomery St., Belleville 9, N. J.
 Eastman Kodak Co., 343 State St., Rochester 4, N. Y.
 Eaton Electronics Corp., Eaton Ave., Moodus, Conn.
 Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S. E., Massillon, Ohio.
 Eberline Instrument Division, P. O. Box 279, Santa Fe, N. M.
 Ebert Electronics Corp., 212-26 Jamaica Ave., Queens Village 28, N. Y.
 Eby Co., Hugh H., 4701 Germantown Ave., Philadelphia 44, Pa.
 Ecco High Frequency Corp., 7020 Hudson Blvd., North Bergen, N. J.
 Eckstein Radio & Television Co., 2601 E. Franklin Ave., Minneapolis 6, Minn.
 Eclipse-Pioneer Div., Bendix Aviation Corp., Teterboro, N. J.
 Economy Fuse & Mfg. Co., 2717 Greenview Ave., Chicago 14, Ill.
 Ed-Berl Products, Inc., 87 Merrick Rd., Baldwin, N. Y.

Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.

Eder Engineering Co., 219 E. Becher St. Milwaukee 2, Wis.

Edgerton, Germeshausen & Grier, Inc., 160 Brookline Ave., Boston, Mass.

Edin Co., Inc., 207 St., Worcester, Mass.

Edison Industries, Thomas A., Instrument Div., 81 Lakeside Ave., West Orange, N. J.

Edmund Scientific Corp., 502 E. Gloucester Pike, Barrington, N. J.

Edo Corp., College Point, N. Y.

Eichner Instruments, L. C., 19 Sebagus St., Clifton, N. J.

Eicor, Inc., 4235 W. North Ave., Chicago 39, Ill.

Eidson Electronic Co., 1902 N. Third St., Temple, Texas.

Eisler Engineering Co., Inc., 751 S. 13th St., Newark 3, N. J.

Eitel-McCullough, Inc., San Bruno, Calif.

Elastic Stop Nut Corp., 2330 Vauxhall Rd., Union, N. J.

Elco Corp., "M" St. below Erie Ave., Philadelphia 24, Pa.

Elco Mfg. Co., 137 Herricks Rd., New Hyde Park, N. Y.

Elcor, Inc., P.O. Box 354, McLean, Va.

Eldema Corp., 9844 Remer St., El Monte, Calif.

Electronic Mechanisms, Inc., P. O. Box 1156, Greenwich, Conn.

Electra Mfg. Co., Resistor Div., 4051 Broadway, Kansas City, Mo.

Electralab, Inc., Sub. of Farrington Mfg. Co., Needham Heights 94, Mass.

Electran Mfg. Co., 1901 N. Clybourn, Chicago 3, Ill.

Electric Auto-Lite Co., The, Champlain St., Toledo 1, Ohio.

Electric Auto-Lite Co., Wire & Cable Div., 3529 24th St., Port Huron, Mich.

Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.

Electric Design & Mfg. Corp., Burlington, Iowa.

Electric Eye Equipment Co., 1938 E. Fairchild St., Danville, Ill.

Electric Furnace Co., Salem, Ohio.

Electric Indicator Co., Inc., Camp Ave., Springdale, Conn.

Electric Machinery & Equipment Div. of American Electronics, Inc., 2112 N. Chico Ave., El Monte, Calif.

Electric Motor & Specialties, Inc., King & Hamsher Sts., Garrett, Ind.

Electric Regulator Corp., Pearl St., Norwalk, Conn.

Electric Soldering Iron Co., W. Elm St., Deep River, Conn.

Electric Specialty Co., 300 South St., Stamford, Conn.

Electric Storage Battery Co., Exide Industrial Div., 42 S. 15th St., Philadelphia 2, Pa.

Electric Trading Co., 313 Canal St., New York, N. Y.

Electrical Communications Co., 765 Clementina St., San Francisco, Calif.

Electrical Industries Div., Philips Electronics, Inc., 691 Central Ave., Murray Hill, N. J.

Electrical Insulation Co., Inc., 1245 Marconi Blvd., Copiague, N. Y.

Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y.

Electrical Products Corp., 1100 N. Main St., Los Angeles 12, Calif.

Electrical Refractories Co., 50 Clark St., East Palestine, Ohio.

Electrical Service Co., 1271 Mission St., San Francisco, Calif.

Electrical Tower Service, Inc., 325 S. Washington St., Peoria, Ill.

Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill.

Electro-Aire Div. of Hydro Aire, Inc., 6909 Farmdale Ave., North Hollywood, Calif.

Electro-Capacitors Co., 10132 Edes Ave., Oakland 3, Calif.

Electro Circuits, Inc., 401 E. Green St., Pasadena, Calif.

Electro-Coatings, Inc., 1662 W. Fullerton Ave., Chicago 14, Ill.

Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.

Electro Data Div. of Burroughs Corp., 460 Sierra Madre Villa, Pasadena 6, Calif.

Electro Development Co., 14701 Keswick St., Van Nuys, Calif.

Electro Devices, Inc., 580 Main St., Wilmington, Mass.

Electro Engineering Products Co., 609 W. Lake St., Chicago, Ill.

Electro Engineering Works, 401 Preda St., San Leandro, Calif.

Electro-Flex Heat, Inc., 83 Woodbine St., Hartford 6, Conn.

Electro Impulse Labs., 208 River St., Red Bank, N. J.

Electro Instruments, Inc., 3794 Rosecrans, San Diego 10, Calif.

Electro-Measurements, Inc., 7524 S.W. Macadam, Portland 1, Ore.

Electro-Mec Laboratory Inc., 47-51 33rd St., Long Island City 1, N. Y.

Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.

Electro-Mechanical Research, Inc., Ridgefield, Conn.

Electro-Mechanical Specialties Co., Inc., 1016 N. Highland Ave., Los Angeles 38, Calif.

Electro-Medical Lab., Inc., South Woodstock 8, Vt.

Electro-Miniatures Corp., 1060 Elm Ave., Ridgefield, N. J.

Electro Motive Mfg. Co., South Park & John St., Willimantic, Conn.

Electro Products Labs., 4501 N. Ravenswood Ave., Chicago 40, Ill.

Electro-Pulse, Inc., 11861 Teale St., Culver City, Calif.

Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.

Electro-Seal Corp., 946 North Ave., Des Plaines, Ill.

Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.

Electro Switch Corp., 167 King Ave., Weymouth 88, Mass.

Electro-Switch & Controls, Inc., 5755 Camille Ave., Culver City, Calif.

Electro Tec Corp., South Hackensack, N. J.

Electro-Tech Pacific, Santa Barbara Airport, P.O. Box 455, Goleta, Calif.

Electro-Technical Products Div. of Sun Chemical Corp., 113 E. Centre St., Nutley 10, N. J.

Electro Voice Mfg Co., Inc., Buchanan, Mich.

Electro-Winders Co., Inc., 854 W. Front St., Covina, Calif.

Electro-Wire Service, 5 Beekman St., New York 7, N. Y.

Electrochemical Industries, Inc., 35 Armory St., Worcester, Mass.

Electrodyn Co., Endicott St., Norwood, Mass.

Electromath Corp., 190 Henry St., Stamford, Conn.

Electromation Co., 1646 Eighteenth St., Santa Monica, Calif.

Electron Enterprises, 6917-19-21 Stanley Ave., Berwyn, Ill.

Electron Products, Inc., 430 N. Halstead St., Pasadena, Calif.

Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.

Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.

Electronic Associates, Inc., Long Branch, N. J.

Electronic Batteries, Inc., Bush Terminal Bldg. No. 4, 28-34 35th St., Brooklyn 32, N. Y.

Electronic Coils, Inc., P. O. Box 1665, 33 Lyman St., Springfield, Mass.

Electronic Computer Div., Underwood Corp., 35-10 36th Ave., Long Island City 6, N. Y.

Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.

Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.

Electronic Devices, Inc., Precision Rectifier Div., 429 12th St., Brooklyn, N. Y.

Electronic Engineering Associates, Ltd., 1048 Brittan Ave., San Carlos, Calif.

Electronic Enterprises, Inc., 65 7th Ave., Newark 4, N. J.

Electronic Fabricators, Inc., 682 Broadway, New York 12, N. Y.

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.

Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.

Electronic Measurements Co., Lewis St. & Maple Ave., Eatontown, N. J.

Electronic Measurements Corp., 280 Lafayette St., New York 12, N. Y.

Electronic Mechanics, Inc., 101 Clifton Blvd., Clifton, N. J.

Electronic Parts Mfg. Co., Inc., 508-10 25th St., Union City, N. J.

Electronic Plastics Corp., 675 Barbey St., Brooklyn 7, N. Y.

Electronic Processes Corp., 2190 Folsom St., San Francisco 10, Calif.

Electronic Products Co., 111 E. Third St., Mt. Vernon, N. Y.

Electronic Products Corp., 322 State St., Santa Barbara, Calif.

Electronic Protection, Inc., 452 W. Chicago Ave., Chicago 10, Ill.

Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.

Electronic Research Labs., 85 Surrey St., Brighton 35, Mass.

Electronic Service Corp., 2906 Birch St., Franklin Park, Ill.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

Electronic Systems Engineering Co., 903 Cravens Bldg., Oklahoma City, Okla.

Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.

Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.

Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.

Electronics Computer Corp., 6191 Ridge Ave., Philadelphia 28, Pa.

Electronics Corporation of America, 77 Broadway, Cambridge 42, Mass.

Electronics Development Co., Inc., 3743 N. Cahuenga Blvd., North Hollywood, Calif.

Electronics, Inc., 39 York Rd., Willow Grove, Pa.

Electronics Manufacturing Div. of Sid Stone Radio Labs., 739 Tremont St., Boston, Mass.

Electrons, Inc., 127 Sussex Ave., Newark 3, N. J.

Electrovert Inc., 489 Fifth Ave., New York 17, N. Y.

Electrovox Co., Inc., 60 Franklin St., East Orange, N. J.

Electymote Motor Products Corp., Genoa, Ill.

Electro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.

Elesta Ltd., Bad Ragaz, Switzerland.

Elgin Metalformers Corp., 630 Congdon Ave., Elgin, Ill.

Elgin National Watch Co., Electronics Div., 2435 N. Naomi St., Burbank, Calif.

Elk Electronic Labs., Inc., 333 W. 52nd St., New York 19, N. Y.

Ellanar Chemical Co., 2308 Oakton St., Evanston, Ill.

Ellis Associates, Box 77, Pelham, N. Y.

Ellis & Sons, Inc., George D., 4002 N. American St., Philadelphia 40, Pa.

Ellis & Watts Products Inc., P.O. Box 33, Cincinnati 36, Ohio.

Elm Laboratories, 18 South Broadway, Dobbs Ferry, N. Y.

El Ray Motor Co., Inc., 11747 Vese St., North Hollywood, Calif.

Eltran Corp., St. Anne, Ill.

Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.

Embassy Engineering Corp., 673 Elton Ave., New York 51, N. Y.

Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.

Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.

Emerson Plastics Corp., 1383 Seabury Ave., Bronx 61, N. Y.

Emerson Radio & Phonograph Corp., 14th & Coles Sts., Jersey City, N. J.

Empire Devices Products Corp., 38-15 Bell Blvd., Bay-side 61, N. Y.

Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.

Endevco Corp., 161 E. California St., Pasadena, Calif.

Endicott Coil Co., Inc., 24 Charlotte St., Binghamton, N. Y.

Enflo Corp., Route 38 at Airport Circle, Pennsauken, N. J.

Engineered Electronics Co., 506 E. First St., Santa Ana, Calif.

Engineered Magnetics Div. of Gulton Mfg. Corp., 11818 Teale St., Culver City, Calif.

Engineered Precision Casting Co., Matawan Rd., Morganville, N. J.

Engineering Associates, 434 Patterson Rd., Dayton 9, Ohio.

Engineering Co., 27 Wright St., Newark, N. J.

Engineering Specialty Co., 3100 Eldredge St., Salt Lake City, Utah.

Enjay Inc., 15 W. 51st St., New York 20, N. Y.

Ensign Coil Co., 2516 S. Pulaski Rd., Chicago, Ill.

Enthone, Inc., 442 Elm St., New Haven 2, Conn.

Entron Inc., 4902 Lawrence St., Bladensburg, Md.

Environmental Equipment Co., 371 Linden St., Brooklyn 27, N. Y.

Epcu Products, Inc., 2500 Atlantic Ave., Brooklyn 17, N. Y.

Epic, Inc., 154 Nassau St., New York 38, N. Y.

Epoxy Products, Inc., 137 Coit St., Irvington, N. J.

Eppley Lab., Inc., The, Newport, R. I.

Epsco, Incorporated, 588 Commonwealth Ave., Boston 15, Mass.

Equipment & Service Co., 6815 Orleole Drive, Dallas 9, Texas.

Era Electric Corp., 314 Valley Brook Ave., Lyndhurst, N. J.

Erca Tool Die & Stamping Co., 19 Ash St., Brooklyn 22, N. Y.

Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.

Erdo Engineering Corp., Addison, Ill.

Erle Resistor Corp., Erie 6, Pa.

Erwood Inc., 1770 Berteau Ave., Chicago 13, Ill.

Ess Specialty Corp., 96 S. Washington Ave., Bergenfield, N. J.

Essex Connector Corp., Div. of Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.

Essex Electronics, Berkeley Heights, N. J.

Essex Wire Corp., Magnet Wire Div. & Wire & Cable Div., 1610 Wall St., Fort Wayne, Ind.

Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.

Esterline-Angus Co., P. O. Box 596, Indianapolis 6, Ind.

Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.

Ethylene Chemical Corp., 245 Broad St., Summit, N. J.

Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.

Ewald Instruments, Route 7E, Kent, Conn.

Exact Engineering & Mfg. Co., P. O. Box 668, Ocean-side, Calif.

Exact Industries, Inc., 8730-36 Santa Monica Blvd., Los Angeles 46, Calif.

Exceller Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.

Executone, Inc., 415 Lexington Ave., New York 17, N. Y.

Extruders, Inc., 3232 W. El Segundo Blvd., Hawthorne, Calif.

Eylet Tool Co., Inc., 236A Broadway, Cambridge 42, Mass.

F

F & M Sales, Inc., 1054 Cahuenga Blvd., Hollywood 38, Calif.

F-R Machine Works Inc., 26-12 Borough Place, Woodside 77, N. Y.

Faber Mfg. Co., Merle, 35 Stillman St., San Francisco 7, Calif.

Faber Pencil Co., Eberhard Rubber Div., 47 Colden St., Newark, N. J.

Factory Enterprises, Inc., 3431 Butler St., Pittsburgh 1, Pa.

Fada Radio & Electric Co., Inc., 525 Main St., Belleville, N. J.

Fafnir Bearing Co., The, New Britain, Conn.

Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.

Fairchild Camera & Instrument Corp., Electrical Products Div., 110 Main St., Burlington, Vt.

Fairchild Camera & Instrument Corp., Industrial Camera Div., 88-06 Van Wyck Expressway, Jamaica 1, N. Y.

Fairchild Camera & Instrument Corp., Reconnaissance Systems Div., Robbins Lane, Syosset, N. Y.

Fairchild Controls Corp., Components Div., 225 Park Ave., Hicksville, N. Y.

Fairchild Controls Corp., Electronics Div., 2 Aerial Way, Syosset, N. Y.

Fairchild Electrical Products Division, 110 Main St., Burlington, Vt.

Fairchild Electrotechnics Division, 118 E. 16th St., Costa Mesa, Calif.

Fairchild Engine & Airplane Corp., Guided Missiles Div., Wyandanch, N. Y.

Fairchild Recording Equipment Co., 10-40 45th Ave., Long Island City 1, N. Y.

Fairfield Engineering Corp., 934 Hope St., Springdale, Conn.

Fair-Rite Products Corp., Wallkill, N. Y.
 Falcon Electronics Corp., 308 William St., Harrison, N. J.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
 Falstrom Co., 44 Falstrom Court, Passaic, N. J.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
 Farley & Loetscher Mfg. Co., Plastics Div., Dubuque, Iowa.
 Farmer Electric Products Co., Inc., 2300 Washington St., Newton Lower Falls 62, Mass.
 Farnsworth Electronic Co., Pacific Div., 815 S. San Antonio Rd., Palo Alto, Calif.
 Farnsworth Electronics Co., Div. of IT&T, 3700 E. Pontiac St., Fort Wayne 1, Ind.
 Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
 Fasco Industries, Inc., Rochester 2, N. Y.
 Fast & Co., John E., 3538 N. Kedzie Ave., Chicago 18, Ill.
 Fasteners, Inc., 580 Fifth Ave., New York 36, N. Y.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
 Federal Cable Div. of Royal Electric Corp., 95 Grand Ave., Pawtucket, R. I.
 Federal Mfg. & Engineering Corp., 1055 Stewart Ave., Garden City, N. Y.
 Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
 Federal Screw Products Inc., 3917 N. Kedzie Ave., Chicago 18, Ill.
 Federal Shock Mount Corp., 1060 Washington Ave., New York 56, N. Y.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Federal Telephone & Radio Co., 88 Kingsland Rd., Clifton, N. J.
 Federal Tool Engineering Inc., 1386 Pompton Ave., Cedar Grove, N. J.
 Federal Tool & Mfg. Co., 3600 Alabama Ave., Minneapolis 16, Minn.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 Feedback Controls, Inc., 899 Main St., Waltham 54, Mass.
 Feiler Engineering & Mfg. Co., 8026 N. Monticello Ave., Skokie, Ill.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
 Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
 Felters Co., 210 South St., Boston, Mass.
 Fenwal Electronics, Inc., Ashland, Mass.
 Fenwal Incorporated, Ashland, Mass.
 Ferguson Perforating & Wire Co., 130 Ernest St., Providence 5, R. I.
 Ferranti Electric, Inc., 30 Rockefeller Plaza, New York 20, N. Y.
 Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 37, Ill.
 Ferricore, Inc., 303 Railroad Place, Orange, N. J.
 Ferris Instrument Co., 110 Cornelia St., Bonton, N. J.
 Ferrofluidics Corp., Gregg & Route 17, Lodi, N. J.
 Ferroxcube Corp., of America, 125 E. Bridge St., Sagauties, N. Y.
 Fidelitone, Inc., 6415 Ravenswood, Chicago 26, Ill.
 Fidelity Amplifier Co., 703 Willow St., Chicago 14, Ill.
 Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
 Fidelity Instrument Corp., 1000 E. Boundary Ave., York, Pa.
 Field Electrical Instrument Co., 8 N. Manheim Blvd., New Paltz, N. Y.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Film Capacitors, Inc., 3400 Park Ave., New York 56, N. Y.
 Filmohm Corp., 48 W. 25th St., New York 10, N. Y.
 Filter Networks, Inc., 24 Charlotte St., Binghamton, N. Y.
 Filtrors, Inc., 30 Sagamore Hill Drive, Port Washington, N. Y.
 Filtron Co., Inc., 131-05 Fowler Ave., Flushing, N. Y.
 Finn & Co., Inc., T. R., 200 Central Ave., Hawthorne, N. J.
 Finney Co., The, 34 W. Interstate, Bedford, Ohio.
 Fireye Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass.
 First Electronics Corp., 117 Blue Hill Ave., Boston 19, Mass.
 Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
 Fischer & Co., R. A., 517 Commercial St., Glendale 3, Calif.
 Fisher & Crome, 107 N. Camac St., Philadelphia 7, Pa.
 Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind.
 Fisher-Pierce Co., 170 Pearl St., South Braintree (Boston 85), Mass.
 Fisher Radio Corp., 21-21 Forty-fourth Drive, Long Island City 1, N. Y.
 Fisher Research Lab., Inc., 1961 University Ave., Palo Alto, Calif.
 Five Star Co., 10 West Main St., Plantsville, Conn.
 Flexaust Co., The, 100 Park Ave., New York 17, N. Y.
 Flexo Wire Div. of Copperweld Steel Co., Oswego, N. Y.
 Flexonics Corp., 1315 S. Third Ave., Maywood, Ill.
 Flexrock Co., 8608 Filbert St., Philadelphia 1, Pa.
 Flight Research, Inc., P. O. Box 1-F, Richmond 1, Va.
 Flock Process Co., Inc., 373 Main Ave., Norwalk, Conn.
 Fluke Mfg. Co., Inc., John, 1111 W. Nickerson St., Seattle 99, Wash.
 Flush Wall Radio Co., 1012 Cleveland St., Clearwater, Fla.
 Foote Brothers Gear & Machine Corp., 4545 S. Western Blvd., Chicago 9, Ill.
 Foote Mineral Co., 18 W. Chelton Ave., Philadelphia 44, Pa.
 Ford Engineering Co., Inc., 129 East "A" St., Upland, Calif.

Ford Instrument Co., Div. of Sperry Rand Corp., 31-10 Thomson Ave., Long Island City 1, N. Y.
 Ford Radio & Mica Corp., 538 63rd St., Brooklyn 20, N. Y.
 Fort Hill Plastic Letters Corp., 40 Hanover St., Boston, Mass.
 Forest Electric Co., 7216 Circle Road, Forest Park, Ill.
 Formatic Co., 178 Bridge St., Naugatuck, Conn.
 Formica Corp., The, 4587 Spring Grove Ave., Cincinnati 32, Ohio.
 Formica Metal Products Co., Corporation Way, Medford, Mass.
 Fort Wayne Metals, Inc., Fort Wayne 6, Ind.
 Forter-Teichmann Co., Clark Bldg., Pittsburgh 22, Pa.
 Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio.
 Fostoria Pressed Steel Corp., Fostoria, Ohio.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 Fox Co., C. J., The, 236 Aborn St., P. O. Box 1186, Providence 1, R. I.
 Fox Products Co., 4720 N. 18th St., Philadelphia 41, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Frank Gear Works, Inc., 1932 W. Columbia Ave., Chicago 26, Ill.
 Frankel Connector Co., 27 Vestry St., New York, N. Y.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Freed Transformer Co., Inc., 1736 Weirfield St., Brooklyn 27, N. Y.
 Frenchtown Porcelain Co., Trenton 9, N. J.
 Frequency Standards, Inc., P. O. Box 504, Asbury Park, N. J.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 Friden Calculating Machine Co., Inc., 2350 Washington Ave., San Leandro, Calif.
 Friez Instrument Div., Bendix Aviation Corp., Baltimore 4, Md.
 Fugle-Miller Labs., Inc., 301 Central Ave., Clark, N. J.
 Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville 1, Tenn.
 Furane Plastics, Inc., 4516 Brazil St., Los Angeles 39, Calif.
 Fusite Corp., 6000 Fernview Ave., Cincinnati 13, Ohio.
 Futuramic Co., 915 S. Broadway, Park Ridge, Ill.

G

G-C Electronics Mfg. Co., Div. of G-C Textron, Inc., 400 S. Wyman St., Rockford, Ill.
 G-L Electronics Co., Inc., 2921 Admiral Wilson Blvd., Camden 5, N. J.
 G-M Laboratories, Inc., 4336 N. Knox Ave., Chicago, Ill.
 GPS Instrument Co., Inc., 811 Boylston St., Boston 16, Mass.
 G-V Controls Inc., 28 Hollywood Plaza, East Orange, N. J.
 Gabriel Electronics Div., The Gabriel Co., 135 Crescent Rd., Needham Heights 94, Mass.
 Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
 Gahagan, Inc., 11 W. Fourth St., Bethlehem, Pa.
 Gammewell Co., The, 1238 Chestnut St., Newton Upper Falls 64, Mass.
 Gar Precision Parts, Inc., 703 Pacific St., Stamford, Conn.
 Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.
 Gardner Electronics, 2545 E. Indian School Rd., Phoenix, Ariz.
 Gardner Lab., Inc., 4723 Elm St., Bethesda 14, Md.
 Garfield Wire Div. of The Overlakes Corp., 142 Monroe St., Garfield, N. J.
 Garlock Packing Co., The, Palmyra, N. Y.
 Garrard Sales Corp., 80 Shore Rd., Port Washington, N. Y.
 Garrepy Platers, Inc., 17-19 Bartlett St., Worcester 8, Mass.
 Gaston Power Tools, Inc., P. O. Box 312, Harvey, Ill.
 Gates Electronic Co., 2090 Barries Ave., Bronx 62, N. Y.
 Gates Radio Co., Quincy, Ill.
 Gear Specialties, Inc., 2635 W. Medill Ave., Chicago 47, Ill.
 Gear Supply Co., 880 El Camino Real, Belmont, Calif.
 Gear Systems Inc., Div. of Geartronics Corp., Main St., West Concord, Mass.
 Gee-Lar Mfg. Co., Div. of General Cement-Textron Inc., 400 S. Wyman St., Rockford, Ill.
 Geisler Laboratories, P. O. Box 252, Menlo Park, Calif.
 Gem Ear Phone Co., Inc., 50 W. 29th St., New York 1, N. Y.
 Gemex Corp., The, Industrial Products Div., 1200 Commerce Ave., Union, N. J.
 General American Transportation Corp., Kanigen Div., 135 S. La Salle St., Chicago, Ill.
 General Apparatus Co., 1344-6 E. 32nd St., New York 16, N. Y.
 General Automatic Corp., 12 Carlton Ave., Mountain View, N. J.
 General Aviation & Electronics Mfg. Co., Inc., 179 Berger St., Wood-Ridge, N. J.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 General Cement Mfg. Co., Div. of Textron, Inc., Electronic Div., 400 S. Wyman St., Rockford, Ill.
 General Ceramics Corp., Keasbey, N. J.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 General Communication Co., 681 Beacon St., Boston 15, Mass.

General Components Inc., 225-229 E. 144th St., New York 51, N. Y.
 General Control Company, 1212 Soldiers Field Rd., Boston 34, Mass.
 General Controls Co., Glendale 1, Calif.
 General Cybernetics Corp., 1751 N. Coronado St., Los Angeles 26, Calif.
 General Devices, Inc., P. O. Box 253, Princeton, N. J.
 General Electric Co., Apparatus Sales Div., 1 River Rd., Schenectady 5, N. Y.
 General Electric Co., Chemical Materials Dept., Pittsfield, Mass.
 General Electric Co., Clock and Timer Dept., Ashland, Mass.
 General Electric Co., Communication Products Dept., Electronics Park, Syracuse, N. Y.
 General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
 General Electric Co., Distribution Assemblies Dept., 41 Woodford Ave., Plainville, Conn.
 General Electric Co., Laminated Products Dept., Coshocton, Ohio.
 General Electric Co., Lamp Leads & Bases Dept., 17825 St. Clair Ave., Cleveland 12, Ohio.
 General Electric Co., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 General Electric Co., Magnetic Materials Section, 7780 Neff Rd., Edmore, Mich.
 General Electric Co., Miniature Lamp Dept., Nela Park, Cleveland 12, Ohio.
 General Electric Co., Plastics Dept., 132 S. Water St., Decatur, Ill.
 General Electric Co., Semiconductor Products Dept., Electronics Park, 1224 W. Genesee St., Syracuse, N. Y.
 General Electric Co., Silicone Products Dept., Waterford, N. Y.
 General Electric Co., Specialty Electronic Components Dept., W. Genesee St., Auburn, N. Y.
 General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.
 General Electric Co., Tube Sales, 1 River Rd., Schenectady 5, N. Y.
 General Electric Co. Ltd. of England, 80 Shore Rd., Port Washington, N. Y.
 General Electric Co., Ltd. of England, (Imtra Corp.), 58 Charles St., Cambridge, Mass.
 General Electronic Laboratory, Inc., 18 Ames St., Cambridge, Mass.
 General Electronics Corp., 17 Madison Ave., Montgomery 4, Ala.
 General Findings & Supply Co., Industrial Div., Attleboro, Mass.
 General Hermetic Sealing Corp., 99 E. Hawthorne, Valley Stream, N. Y.
 General Industries Co., Taylor and Olive Sts., Elyria, Ohio.
 General Instrument Corp., 65 Gouverneur St., Newark 1, N. J.
 General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.
 General Kinetics, Inc., 555 23rd St., S., Arlington 2, Va.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
 General Magnetic Corp., 10001 Erwin Ave., Detroit 34, Mich.
 General Magnetics, Inc., 135 Bloomfield Ave., Bloomfield, N. J.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.
 General Mills, Inc., Mechanical Div., 1620 Central Ave., Minneapolis 13, Minn.
 General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y.
 General Photo Products Co., Inc., General Photo Bldg., 15 Summit Ave., Chatham, N. J.
 General Plastics Corp., P. O. Box 1236, Paterson, N. J.
 General Precision Laboratory Inc., 63 Bedford Rd., Pleasantville, N. Y.
 General Radio Co., 275 Massachusetts Ave., Cambridge 39, Mass.
 General Research & Supply Co., 572 S. Division Ave., Grand Rapids 3, Mich.
 General Resistance Products Corp., 577 E. 156th St., New York 55, N. Y.
 General RF Fittings, Inc., 702 Beacon St., Boston 15, Mass.
 General Tire & Rubber Co., The, Akron, Ohio.
 General Transformer Co., 18240 Harwood Ave., Homewood, Ill.
 General Transistor Corp., 130-11 90th Ave., Richmond Hill 18, N. Y.
 General Transistor Western Corp., 6110 Venice Blvd., Los Angeles 34, Calif.
 Genisco, Inc., 2233 Federal Ave., Los Angeles 64, Calif.
 Georator Corp., Manassas, Va.
 George Co., P. D., 5200 N. Second St., St. Louis, Mo.
 Gerber Scientific Instrument Co., 89 Spruce St., Hartford 1, Conn.
 Gering Products Inc., N. Seventh St. at Monroe Ave., Kenilworth, N. J.
 Gerlyn Engineering Co., 2151 N. Damen Ave., Chicago 47, Ill.
 Gertsch Products, Inc., 3211 S. La Cienega Blvd., Los Angeles 16, Calif.
 Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif.
 Gibson Co., William D., The, 1800 Clybourn Ave., Chicago 14, Ill.
 Gibson Electric Co., The, Box J527, Delmont, Pa.
 Gilfilan Bros., Inc., 1815 Venice Blvd., Los Angeles 6, Calif.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Girard-Hopkins, 1000 40th Ave., Oakland 1, Calif.
 Girdler Company, The, Thermex Div., 224 E. Broadway, Louisville 1, Ky.

- Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
- Glaser-Steers Corp., 2 Main St., Belleville 9, N. J.
- Glass Engineering Labs., 601 O'Neil Ave., Belmont, Calif.
- Glass-Solder Engineering, 300 N. Lake Ave., Pasadena 4, Calif.
- Glassteel Products Co., Inc., 1111 E. Elizabeth Ave., Linden, N. J.
- Glastic Corp., The, 4321 Glenridge Rd., Cleveland 21, Ohio.
- Gleason-Avery Co., Auburn, N. Y.
- Glenco Corp., A Sub. of Gulton Industries, Metuchen, N. J.
- Globar Division, Carborundum Co., Niagara Falls, N. Y.
- Globe Electrical Mfg. Co., 1729 W. 134th St., Gardena, Calif.
- Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
- Glyco Products Co., Inc., Empire State Bldg., New York 1, N. Y.
- Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.
- Godfrey Manufacturing Co., 1726 N. Orchard St., Chicago 14, Ill.
- Goe Engineering Co., 219 S. Mednik Ave., Los Angeles 22, Calif.
- Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
- Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
- Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J.
- Gonset Co., 801 S. Main St., Burbank, Calif.
- Good-All Electric Mfg. Co., 112 W. First St., Ogallala, Neb.
- Goodline Divn., Wire Co. of America, Inc., 309 Date Ave., Alhambra, Calif.
- Goodrich Aviation Products, B. F., Div. of B. F. Goodrich Co., Akron, Ohio.
- Goodrich Chemical Co., B. F., 3135 Euclid Ave., Cleveland 15, Ohio.
- Goodrich Industrial Products Co., B. F., 500 S. Main St., Akron 18, Ohio.
- Goodrich Industrial Products Co., B. F. A Div. of The B. F. Goodrich Co., Plastic Products, Marietta, Ohio.
- Goodrich Sponge Products, B. F., A Div. of The B. F. Goodrich Co., Shelton, Conn.
- Goodyear Aircraft Corp., 1210 Massillon Road, Akron 15, Ohio.
- Goodyear Tire & Rubber Co., Inc., Chemical Div., 1144 E. Market St., Akron 16, Ohio.
- Gordon Co., Claud S., 3000 S. Wallace St., Chicago 16, Ill.
- Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
- Gordons Corp., 250 Glenwood Ave., Bloomfield, N. J.
- Gorn Electric Co., Inc., Main St., Stamford, Conn.
- Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
- Gotham Audio Development Corp., 2 W. 46th St., New York 36, N. Y.
- Gould-National Batteries, Inc., 35 Neoga St., Depew, N. Y.
- Gow-Mac Instrument Co., 100 Kings Rd., Madison, N. J.
- Grafo Colloids Corp., Sharon, Pa.
- Graham Mfg. Co., Inc., 247 Bridge St., East Greenwich, R. I.
- Grallen Electronic Div. of Clegg, Inc., Hanover & Ridge-dale Aves., Morristown, N. J.
- Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill.
- Granco Products, Inc., 36-17 20th Ave., Long Island City, N. Y.
- Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
- Grand Transformers, Inc., Hey St., Grand Haven, Mich.
- Grant Gear Works, Inc., 154 W. Second St., South Boston, Mass.
- Grant Pulley & Hardware Corp., High St., West Nyack, N. Y.
- Graphik-Circuits Div. of Cinch Mfg. Corp., 200 S. Turnbull Canyon Rd., La Puente, Calif.
- Graphite Metallizing Corp., 1052 Nepperhan Ave., Yonkers, N. Y.
- Grason-Stadler Co., West Concord, Mass.
- Grass Instrument Co., 101 Old Colony Ave., Quincy, Mass.
- Graver Water Conditioner Co., 216 W. 14th St., New York, N. Y.
- Gray Instrument Co., 200 E. Church Lane, Philadelphia 44, Pa.
- Gray & Kuhn, Inc., 20 Railroad Ave., Roslyn Heights, N. Y.
- Gray Radio Co., Inc., 501 Forest Hill Blvd., West Palm Beach, Fla.
- Gray Research & Development Co., Inc., 685 Hilliard St., Manchester, Conn.
- Grayhill, Inc., 537 Hillgrove Ave., La Grange, Ill.
- Great Eastern Metal Products Co., 22 Woodworth Ave., Yonkers, N. Y.
- Great Lakes Electric Mfg. Co., 17 S. Desplaines St., Chicago 6, Ill.
- Green Instrument Co., 363A Putnam Ave., Cambridge, Mass.
- Green Rectifier Co., 1-10 Thirtieth St., Fair Lawn, N. J.
- Greenleaf Mfg. Co., The, 7814 Maplewood Industrial Court, St. Louis 17, Mo.
- Greer Stop Nut Co., 2620 W. Flournoy St., Chicago 12, Ill.
- Greibach Instruments Corp., An Associate of Gulton Industries, Metuchen, N. J.
- Gries Reproductor Corp., 151 Beechwood St., New Rochelle, N. Y.
- Grieve-Hendry Co., Inc., 1401-17 W. Carroll Ave., Chicago 7, Ill.
- Griffin Co., John, 2157 James Ave., St. Paul 5, Minn.
- Griffiths Electronics, Inc., 155 Summit St., Newark 3, N. J.
- Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
- Groov-Pin Corp., 1125 Hendricks Causeway, Ridgefield, N. J.
- Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
- Guastavino Co., R., 660 Main St., Woburn, Mass.
- Gudebrod Bros. Silk Co., Inc., Electronics Div., 225 W. 34th St., New York 1, N. Y.
- Gudeman Co., 340 W. Huron St., Chicago 10, Ill.
- Gulton Industries, Inc., Metuchen, N. J.
- Gurley, W. & L. E., 514 Fulton St., Troy, N. Y.
- Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill.
- Gyro Electronics Co., 325 Canal St., New York, N. Y.

H

- H. & H. Products Co., 766 Ramsey Ave., Hillside, N. J.
- HK Metal Craft Mfg. Corp., 3775 Tenth Ave., New York 34, N. Y.
- Haddam Heating Co., Haddam, Conn.
- Hadley Co., Inc., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif.
- Hagen Mfg. Co., Inc., 202 20th St., Moline, Ill.
- Halax Corp., P. O. Box 425, Los Gatos, Calif.
- Haley Electronics Co., 57 William St., New York 5, N. Y.
- Hal-Hen Co., 36-14 Eleventh St., Long Island City 6, N. Y.
- Hall Mfg. Co., 3901 Wesley Terrace, Schiller Park, Ill.
- Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.
- Hallamore Electronics Co., 8352 Brookhurst Ave., Anaheim, Calif.
- Haller, Raymond & Brown, Inc., State College, Pa.
- Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
- Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
- Halm Instrument Co., Inc., Glen Head Rd., Glen Head, N. Y.
- Halogen Insulator & Seal Corp., 10121 Franklin Ave., Franklin Park, Ill.
- Haloid Co., The, 6 Haloid St., Rochester 3, N. Y.
- Hamilton Electronics Corp., Box 100, Bath, N. Y.
- Hamilton Mfg. Co., Two Rivers, Wis.
- Hamlin, Inc., 1316 Sherman Ave., Evanston, Ill.
- Hammarrlund Mfg. Co., Inc., 460 W. 34th St., New York 1, N. Y.
- Hammer Electronics Co., Inc., Box 531, Princeton, N. J.
- Handy & Harman, 82 Fulton St., New York 38, N. Y.
- Hanover Developments, 401 E. 74th St., New York 21, N. Y.
- Hanovia Chemical & Mfg. Co. Special Products Div., 100 Chestnut St., Newark 5, N. J.
- Hansen Electronics Co., 7117 Santa Monica Blvd., Los Angeles 46, Calif.
- Nansen Mfg. Co., Inc., Princeton, Indiana.
- Hanson-Gorrell-Brian, Inc., 85 Hazel St., Glen Cove, N. Y.
- Harder Co., Donald C., 3710 Midway Drive, San Diego 10, Calif.
- Hardman Co., Inc., H. V., 571 Cortlandt St., Belleville 9, N. J.
- Hardwick Hindle, Inc., 40 Hermon St., Newark 5, N. J.
- Harmon, Lichtenstein & Co., 26 Broadway, New York 4, N. Y.
- Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
- Harper Co., The, H. M., 8200 Lehigh Ave., Morton Grove, Ill.
- Harper Electric Furnace Corp., 48 River St., Buffalo 2, N. Y.
- Harper-Leader, Inc., 1046 S. Main St., Waterbury 20, Conn.
- Harrington & King Perforating Co., 5653 Fillmore St., Chicago 44, Ill.
- Harris Transducer Corp., The, Woodbury, Conn.
- Harrison Laboratories, Inc., 45 Industrial Rd., Berkeley Heights, N. J.
- Hart Mfg. Co., 242 Bartholomew Ave., Hartford 1, Conn.
- Hartford City Paper Co., S. Spring St., Hartford City, Ind.
- Hartley Products Co., 521 E. 162nd St., New York 51, N. Y.
- Harvey Hubbell, Inc., State St. & Bostwick Ave., Bridgeport 2, Conn.
- Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
- Harwood Co., Div. of Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
- Harworth Mfg. Co., 409 El Camino Real, Menlo Park, Calif.
- Hassall, Inc., John, P. O. Box 2242, Westbury, N. Y.
- Hastings-Raydist, Inc., Hampton 9, Va.
- Hathaway Instrument Div., Hamilton Watch Co., 5800 E. Jewell Ave., Denver 22, Colo.
- Hauman Instruments Co., Inc., 70 Coolidge Hill Rd., Watertown 72, Mass.
- Havex Industries, Inc., 900 Greenbank Rd., Wilmington 8, Del.
- Hawley Products Co., St. Charles, Ill.
- Haydon Co., A. W., The, 238 N. Elm St., Waterbury, Conn.
- Haydon Mfg. Co., Inc., 245 E. Elm St., Torrington, Conn.
- Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
- Haydu Electronic Products, Inc., 1426 W. Front St., Plainfield, N. J.
- Hayes Inc., C. I., 800 Wellington Ave., Cranston, R. I.
- Haynes Stellite Co., Division of Union Carbide & Carbon Corp., 725 S. Lindsay St., Kokomo, Ind.
- Hays Mfg. Co., 818 W. 12th St., Erie, Pa.
- Heath Co., A Sub. of Daystrom, Inc., Benton Harbor 14, Mich.
- Heavy Minerals Co., 261 Madison Ave., New York 16, N. Y.
- Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
- Heinemann Electric Co., 150 Plum St., Trenton 2, N. J.
- Heinz Electric Co., 685 Lawrence St., Lowell, Mass.
- Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
- Heldor Mfg. Corp., 238 Lewis St., Paterson, N. J.
- Heli-Coil Corp., Shelter Rock Rd., Danbury, Conn.
- Helipot Corp., Newport Beach, Calif.
- Helwig Co., 2544 N. 30th St., Milwaukee 10, Wis.
- Helmway & Bartlett Mfg. Co., 500 Fifth Ave., New York 36, N. Y.
- Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
- Heppner Mfg. Co., P. O. Box 612, Round Lake, Ill.
- Hercules Powder Co., Inc., 900 Market St., Wilmington 99, Del.
- Hermaseal Co., Inc., 1101 Lafayette St., Elkhart, Ind.
- Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.
- Hermetic, Inc., 232 Creek Rd., Keansburg, N. J.
- Hermetic Seal Corp., 29-37 S. Sixth St., Newark 7, N. J.
- Hermetic Seal Transformer Co., 555 N. 5th St., Garland, Texas.
- Hermite Corp., 702 Beacon St., Boston 15, Mass.
- Herrnfeld Engineering Corp., Frank, 5716 Camille Ave., Culver City, Calif.
- Hertner Electric Co., 12690 Elmwood Ave., Cleveland 11, Ohio.
- Herzog Miniature Lamp Works, Inc., 50-17 5th St., Long Island City 1, N. Y.
- Hess, Goldsmith & Co., Inc., 1400 Broadway, New York 18, N. Y.
- Hetherington, Inc., Sharon Hill, Pa.
- Hevi-Duty Electric Co., Milwaukee 1, Wis.
- Hewlett-Packard Co., 275 Page Mill Rd., Palo Alto, Calif.
- Hexacon Electric Co., 130 W. Clay Ave., Roselle Park, N. J.
- Heyman Mfg. Co., Kenilworth 2, N. J.
- Hickok Electrical Instrument Co., 10514 Dupont Ave., Cleveland 8, Ohio.
- Hicks Corp., The, 1671 Hyde Park Ave., Hyde Park, Mass.
- Hieatt Engineering Co., 2228 N. Hollywood Way, Burbank, Calif.
- Hi-G Inc., Bradley Field, Windsor Locks, Conn.
- High Fidelity Products, Box 131, Owensboro, Ky.
- High Speed Hammer Co., Rochester, N. Y.
- High Vacuum Equipment Corp., 2 Churchhill Rd., Hingham, Mass.
- High Voltage Engineering Corp., Burlington, Mass.
- Highland Engineering, 1732 Berkeley, Santa Monica, Calif.
- Highland Engineering Co., 91 Magnolia St., Westbury, N. Y.
- Hill Electronic Engineering & Mfg. Co., Inc., New Kingstown, Pa.
- Hillburn Electronic Products Co., 55 Nassau Ave., Brooklyn 22, N. Y.
- Hillier Instrument Co., Inc., 331 Centennial Ave., Cranford, N. J.
- Hinde & Dauch, Sandusky, Ohio.
- Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J.
- Hitchiner Manufacturing Co., Inc., P. O. Box 232, Milford N. H.
- Hitemp Wires, Inc., 26 Windsor Ave., Mineola, N. Y.
- Hi-Test Chemical Corp., 722 64th St., Brooklyn 20, N. Y.
- Hobbs Mfg. Co., 26 Salisbury St., Worcester, Mass.
- Hobson Bros., 4940 W. Lawrence Ave., Chicago 30, Ill.
- Hoffman Co., P. R., Carlisle, Pa.
- Hoffman Engineering Corp., Anoka, Minn.
- Hoffman Laboratories, Inc., 3761 S. Hill St., Los Angeles 7, Calif.
- Hoffman Radio Div. of Hoffman Electronics Corp., 6200 S. Avalon Blvd., Los Angeles, Calif.
- Hoffman Semiconductor Div. of Hoffman Electronics Corp., 930 Pitner Ave., Evanston, Ill.
- Hofmann Needle Works, Inc., Alfred, 3710 Hudson Ave., Union City, N. J.
- Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
- Holl Audio Inc., 5014 N. Encinta Ave., Temple City, Calif.
- Holland Electronics, 40 Great Jones St., New York 12, N. Y.
- Hollingsworth Co., Solderless Terminal Div., Box 430, Phoenixville, Pa.
- Holtzer-Cabot Motor Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
- Holub Industries, Inc., 414 DeKalb Ave., Sycamore, Ill.
- Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
- Homelite Div. of Tectron Inc., Port Chester, N. Y.
- Hoover Electric Co., 2100 S. Stoner Ave., Los Angeles 25, Calif.
- Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
- Hopkins Engineering Co., 12900 Foothill Blvd., San Fernando, Calif.
- Hopp Press, Inc., 460 W. 34th St., New York, N. Y.
- Hoskins Mfg. Co., 4445 Lawton Ave., Detroit 8, Mich.
- Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
- Houlihan Co., T. J., 2508-14 W. Lawrence Avenue, Chicago 25, Ill.
- Hovis Screwlock Co., 8100 E. Nine Mile Rd., Van Dyke, Mich.
- Howard Industries, Inc., Divisions: Cyclohm Motor Corp., Electric Motor Corp., Racine, Wis.
- Howe International, 431 Danforth, Dept. E-7, Jersey City 5, N. J.

Howell Instrument Co., 3101 Trinity, Fort Worth 7, Texas.
 Hoyt Electrical Instrument Works, Inc., 42 Carleton St., Cambridge 42, Mass.
 Hubbard Scientific Labs., Inc., 1292 E. Third St., Pomona, Calif.
 Huck Mfg. Co., 2480 Bellevue Ave., Detroit 7, Mich.
 Hudson American Corp., 25 W. 43rd St., New York 36, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Hudson Bay Co., Div. of Labline Inc., 3070 W. Grand Ave., Chicago 22, Ill.
 Hudson Lamp Co., 528 Elm St., Kearny, N. J.
 Hudson Tool & Die Co., Inc., 118 S. 14th St., Newark, N. J.
 Hudson Wire Co., Ossining, N. Y.
 Hufco Industries, 2815 W. Olive, Burbank, Calif.
 Huggins Laboratories, 711 Hamilton Ave., Menlo Park, Calif.
 Hughey & Phillips, Inc., 3300 N. San Fernando Blvd., Burbank, Calif.
 Hughes Products Division, Hughes Aircraft Co., Los Angeles 45, Calif.
 Hull Corporation, Abington, Pa.
 Hull-Standard Corp., Abington, Pa.
 Humphrey, Inc., 2805 Canon St., San Diego 6, Calif.
 Hunter-Bristol Corp., Bristol, Pa.
 Hunter Tool Co., 9851 Alburts, Whittier, Calif.
 Hunt Co., Philip A., Palisades Park, N. J.
 Hunt Corp., The, 453 Lincoln St., Carlisle, Pa.
 Hupp Electronics Co., A Div. of Hupp Corp., 753 Circle Ave., Forest Park, Ill.
 Hupp Electronics Co., 265 E. Pomfret St., Carlisle, Pa.
 Hupp/Instrument, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
 Huppert Co., K. H., 6864 Cottage Grove Ave., Chicago 37, Ill.
 Hycon Eastern, Inc., Dept. EBG, 75 Cambridge Parkway, Cambridge, Mass.
 Hycon Electronics, Inc., P. O. Bin D, Pasadena, Calif.
 Hycon Div. of International Resistance Co., 12970 Bradley Ave., Sylmar, Calif.
 Hydraulic Press Mfg. Co., A Div. of Koehring Co., Mt. Gilead, Ohio.
 Hydro Molding Co., Inc., Plattsburgh, N. Y.

I

I. D. E. A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
 I-L-S Instrument Corp., 4525 W. 160th St., Cleveland 11, Ohio.
 I-T-E Circuit Breaker Co., Special Products Div., 601 E. Erie Ave., Philadelphia 34, Pa.
 Ideal Industries, Inc., 5103 Park & Borden Avenues, Sycamore, Ill.
 Ideal Precision Meter Co., Inc., 126 Greenpoint Ave., Brooklyn 22, N. Y.
 Ilg Electric Ventilating Co., 2850 N. Pulaski Rd., Chicago 41, Ill.
 Illinois Condenser Co., 1616 N. Throop St., Chicago 22, Ill.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
 Isco Corporation, Cincinnati 27, Ohio.
 Impact Extrusion Products, Inc., 39 Powderhouse Rd., Roslyn Heights, N. Y.
 Improved Seamless Wire Co., 775 Eddy St., Providence 5, R. I.
 Indiana Steel Products Company, The, Valparaiso, Indiana
 Indiana Steel & Wire Co., Inc., 700 Council St., Muncie, Ind.
 Indium Corp. of America, 1676 Lincoln Ave., Utica 4, N. Y.
 Induction Heating Corp., 181 Wythe Ave., Brooklyn 11, N. Y.
 Induction Motors Corp., 570 Main St., Westbury, N. Y.
 Industrial Condenser Corp., 3243 N. California Ave., Chicago 18, Ill.
 Industrial Control Co., 805 Albin Ave., Lindenhurst, N. Y.
 Industrial Development & Mfg. Corp., P. O. Box 48, Needham, Mass.
 Industrial Devices Inc., 982 River Rd., Edgewater, N. J.
 Industrial Electrical Works, 1509 Chicago St., Omaha 2, Nebraska.
 Industrial Electronic Controls Co., 2271 E. 14th St., Brooklyn 29, N. Y.
 Industrial Electronic Engineers, 3973 Lankershim Blvd., North Hollywood, Calif.
 Industrial Electronics Co., Inc., Hanover, Mass.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Industrial Engravers, Inc., 2212 McDonald Ave., Brooklyn 23, N. Y.
 Industrial Hardware Mfg. Co., Inc., 109 Prince St., New York, N. Y.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Industrial Mica Corp., 223 S. Van Brunt St., Englewood, N. J.
 Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
 Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill.
 Industrial Retaining Ring Co., 57 Cordier St., Irvington 11, N. J.
 Industrial Systems Co., Matawan, N. J.
 Industrial Technics, Inc., 2100 Jackson Rd., Ann Arbor, Mich.
 Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
 Industrial Test Equipment Co., 55 E. 11th St., New York 3, N. Y.

Industrial Timer Corp., 1407 McCarter Highway, Newark 4, N. J.
 Industrial Transformer Corp., Gouldsboro, Pa.
 Industrial Tubes, Inc., 321 Stevens St., Geneva, Ill.
 Industrial Winding Machinery Co., 120 Wall St., New York 5, N. Y.
 Industrial Wiring & Cable Co., 103 Foundry St., Wakefield, Mass.
 Instron Corp., 55 Needham St., Newton Highlands, Mass.
 Industriums, Box 424 Arlington Heights, Ill.
 Ingraham Co., E., Bristol, Conn.
 Inland Electronics Corp., 500 Rathbone Ave., Aurora, Ill.
 Inso Co., Div. of Barry Controls, Inc., Hollis St., Groton, Mass.
 Instant Circuits Div. of Alfred W. Barber Labs., 32-44 Francis Lewis Blvd., Flushing, N. Y.
 Instru-Lec Corp., 520 Hemstead Ave., Mt. Vernon, N. Y.
 Instrument Cases Div. of Ta Mfg. Corp., 510 W. Garfield St., Glendale 4, Calif.
 Instrument Development Laboratories, Inc., 163 Highland Ave., Needham Heights, Mass.
 Instrument Electronics Corp., 90 Main St., P. O. Box 830, Port Washington, N. Y.
 Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill.
 Instrument Resistors Co., 1036 Commerce Ave., Union, N. J.
 Instrument Specialties Co., Inc., 254 Bergen Blvd., Little Falls, N. J.
 Instrument Wire Co., 41 Kendall Ave., Maplewood, N. J.
 Instruments for Industry, Inc., 149 Glen Cove Rd., Mineola, N. Y.
 Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Insuline Corp., of America, 186 Granite St., Manchester, N. H.
 Integrated Mica Corp., 202 Franklin Place, Woodmere, N. Y.
 Intercontinental Dynamics Corp., 170 Coolidge Ave., Englewood, N. J.
 Intercontinental Electronics Corp., 1551 Franklin Ave., Mineola, N. Y.
 Interelectronics Corp., 2432 Grand Concourse, New York 58, N. Y.
 Interference Measurement Lab., Inc., 907 E. 51st St., Brooklyn 3, N. Y.
 International Business Machines, 590 Madison Ave., New York 22, N. Y.
 International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla.
 International Electronic Industries, Inc., Box 1368, Nashville, Tenn.
 International Electronic Research Corp., 145 W. Magnolia Blvd., Burbank, Calif.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 International Instruments, Inc., P. O. Box 2954, New Haven 15, Conn.
 International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.
 International Pump & Machine Works, Inc., 81 Dorsa Ave., Livingston, N. J.
 International Radiant Corp., 4 Manhasset Ave., Port Washington, N. Y.
 International Radio & Electronics Corp., Elkhart, Ind.
 International Rectifier Corp., 1521 E. Grand Ave., El Segundo, Calif.
 International Register Co., 2620 Washington Blvd., Chicago 12, Ill.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 International Research & Development Corp., 769 Thomas Lane, P. O. Box 1707, Columbus 16, Ohio.
 International Resistance Co., 401 N. Broad St., Philadelphia 8, Pa.
 International Telephone & Telegraph Corp., Components Div., 88 Kingsland Rd., Clifton, N. J.
 International Telephone & Telegraph Corp., Industrial Products Div., 88 Kingsland Rd., Clifton, N. J.
 Intersearch, Inc., 7 Arcadia Place, Cincinnati 8, Ohio.
 Interstate Electronics Div. of Interstate Engineering Corp., 875 S. East St., Anaheim, Calif.
 Interstate Electronics, Inc., 227 Fulton St., New York 7, N. Y.
 Investment Casting Co., 60 Brown Ave., Springfield, N. J.
 Ippolito & Co., Inc., James, 401 Concord Ave., Bronx 54, N. Y.
 Iron Fireman Mfg. Co., Electronics Div., 2838 S. E. Ninth Ave., Portland 2, Ore.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Irwin Products, 6312 N. Artesian Ave., Chicago 45, Ill.
 Iscoyante Products, Inc., P. O. Box 1681, Wilmington, Del.
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. J.
 Isolantite Manufacturing Co., Stirling, N. J.

J

J-B-L Instrument Co., Sycamore & Mill Rds., Clifton Heights, Pa.
 J-B-T Instruments, Inc., 431 Chapel St., New Haven 8, Conn.
 JFD Manufacturing Co., Inc., 6101 16th Ave., Brooklyn 4, N. Y.
 J-V-M Engineering Co., 4633 S. Lawndale Ave., Lyons, Ill.
 Jack & Heintz, Inc., Cleveland 1, Ohio.
 Jackes-Evans Mfg. Co., 4427 Geraldine Ave., St. Louis 15, Mo.

Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 Jacobson Nut Mfg. Corp., Market St., Kenilworth 2, N. J.
 Jaidinger Mfg. Co., Inc., The, 1921 W. Hubbard St., Chicago 22, Ill.
 James Vibrapow Co., 4050 N. Rockwell St., Chicago 18, Ill.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Janco Corp., 3111 Winona Ave., Burbank, Calif.
 Janette Electric Mfg. Co., Morton Grove, Illinois
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
 Javex, P. O. Box 646, Redlands, Calif.
 Jeffers Electronics Div. of Speer Carbon Co., Du Bois, Pa.
 Jefferson, Inc., Ray, 40 E. Merrick Rd., Freeport, N. Y.
 Jefferson Products Corp., Pleasant Valley Rd., Sutton, Mass.
 Jelliff Mfg. Corp., C. O., 200 Pequot Ave., Southport, Conn.
 Jennings Radio Mfg. Corp., 970 McLaughlin Ave., P. O. Box 1278, San Jose 8, Calif.
 Jensen Industries, Inc., 7333 W. Harrison, Forest Park, Ill.
 Jensen Mfg. Co., 6601 S. Laramie Ave., Chicago 38, Ill.
 Jerrold Electronics Corp., 23rd & Chestnut St., Philadelphia 3, Pa.
 Jersey Specialty Co., Inc., Burgess Place, Mountainview, N. J.
 Jobbins Electronic Enterprises, 771 Hamilton Ave., Menlo Park, Calif.
 Jodee Plastics Co., 213 Shepherd Ave., Brooklyn 8, N. Y.
 Johanson Mfg. Co., Box 329, Boonton, N. J.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Johns-Manville Dutch Brand Division, 7800 Woodlawn Ave., Chicago 19, Ill.
 Johnson & Hoffman Mfg. Corp., 31 E. Second St., Mineola, N. Y.
 Johnson Co., E. F., Waseca, Minn.
 Johnson Mfg. Co., Inc., Mount Vernon, Iowa.
 Johnson Research Corp., Bethpage, N. Y.
 Johnson-Williams, Inc., 2526 Park Blvd., Palo Alto 14, Calif.
 Johnston Foil Mfg. Co., 6100 S. Broadway, St. Louis 11, Mo.
 Jonas Co., F., 55 W. 42nd St., New York 36, N. Y.
 Jones Div., Howard B., Cinch Mfg. Corp., 1026 S. Homan Ave., Chicago 24, Ill.
 Jones Electronics Co., Inc., M. C., 185 N. Main St., Bristol, Conn.
 Jordan Electronics, Inc., 3025 Mission Rd., Alhambra, Calif.
 Jowl Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
 Joy Mfg. Co., Dept. 39, Oliver Bldg., Pittsburgh 22, Pa.
 Joyro Associates, 488 Latham Rd., Mineola, N. Y.
 Julie Research Laboratories, 556 W. 168th St., New York 32, N. Y.

K

K. F. Development Co., 2606 Spring St., Redwood City, Calif.
 K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn.
 K-W Engineering Works, 3145-A N. 48th St., Milwaukee 16, Wis.
 Kaar Engineering Co., 2995 Middlefield Road, P. O. Box 1320, Palo Alto, Calif.
 Kahle Engineering Co., 1307 Seventh St., North Bergen, N. J.
 Kahn and Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y.
 Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.
 Kanthal Corp., Amelia Place, Stamford, Conn.
 Karp, Lawrence A., 16 Putnam Park, Greenwich, Conn.
 Karp, Lesser & Co., Inc., 60 E. 42nd St., New York 17, N. Y.
 Kartron, Inc., Box 472, Huntington Beach, Calif.
 Kato Engineering Co., 1415 First Ave., Mankato, Minn.
 Katolight Corp., First Ave. at Chestnut, Mankato, Minn.
 Kaupp & Sons, C. B., 32 Newark Way, Maplewood, N. J.
 Kay Electric Co., 14 Maple Ave., Pine Brook, N. J.
 Kay Lab (Kin Tel), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif.
 Kaydon Engineering Corp., The, Muskegon, Mich.
 Kearfott Co., Inc., Engineering & Sales Div., 1378 Main Ave., Clifton, N. J.
 Kearfott Co., Inc., Western Div., 14844 Oxnard St., Van Nuys, Calif.
 Keil Engineering Products Co., 6833 Manchester St., St. Louis, Mo.
 Keim Precision Mirrors, 1346 E. Colorado St., Glendale 5, Calif.
 Keithley Instruments, Inc., Dept. EB, 12415 Euclid Ave., Cleveland 6, Ohio.
 Keller Products Inc., 41 Union St., Manchester, N. H.
 Keller Tool Div., Gardner-Denver Co., Grand Haven, Mich.
 Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Kelnor Mfg. Co., Inc., 1355 Market St., San Francisco 3, Calif.
 Kelvin & Hughes Ltd., New North Rd., Barkingside, Essex, England.
 Kemlite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill.

Kemco Mfg. Co., Inc., 161 W. 18th St., New York 11, N. Y.
 Kentron Electron Products, Inc., 5 Prince Place, Newburyport, Mass.
 Kennedy & Co., D. S., Cohasset, Mass.
 Kennedy Industries, 6808 Vista Del Mar, Playa Del Rey, Calif.
 Kent Co., F. C., 64 Howard St., Irvington, N. J.
 Kenwood Engineering Co., Inc., 265 Colfax Ave., Kenilworth, N. J.
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
 Kepco Labs., Inc., 131-38 Sanford Ave., Flushing 55, N. Y.
 Kerrco Products, Hastings, Neb.
 Kessler Co., Frank, 41-45 47th St., Long Island City 4, N. Y.
 Kester Solder Company, 4212 Wrightwood Ave., Chicago 39, Ill.
 Keuffel & Esser Co., Hoboken, N. J.
 Key Electric Corp., 48 S. Bayles Ave., Port Washington, N. Y.
 Key Resistor Corp., 321 W. Redondo Beach Blvd., Gardena, Calif.
 Keystone Bolt & Nut Corp., 127 Church St., New York 7, N. Y.
 Keystone Carbon Co., Inc., Saint Marys, Pa.
 Keystone Electronics Co., 65 Seventh Ave., Newark, N. J.
 Keystone Electronics Corp., 423 Broome St., New York 13, N. Y.
 Keystone Products Co., 904-6 23rd St., Union City, N. J.
 Kidde & Co., Inc., Walter, 477 Main St., Belleville 9, N. J.
 Kin Tel. (Kay Lab), P. O. Box 623, 5725 Kearny Villa Rd., San Diego 12, Calif.
 Kinevox-Hallen Div., Electromotion Co., 1646 18th St., Santa Monica, Calif.
 King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.
 King Laboratories, Inc., 127 Solar St., Syracuse 3, N. Y.
 King Laboratory, Inc., 2645 S. Second W., Salt Lake City 15, Utah.
 Kings Electronics Co., 40 Marbledale Rd., Tuckahoe, N. Y.
 Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston 30, Mass.
 Kip Electronics Corp., 29 Holly Place, P. O. Box 526, Stamford, Conn.
 Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
 Kirkland Co., H. R., 8 King St., Morristown, N. J.
 Kistler Instrument Corp., 15 Webster St., North Tonawanda, N. Y.
 Klein-Electronics, Leo, 2404 S. La Brea Ave., Los Angeles 16, Calif.
 Klein & Sons, Mathias, 7200 McCormick Rd., Chicago 45, Ill.
 Kleiner Metal Specialties, Inc., P. O. Box K, Dunellen, N. J.
 Klincher Locknut Corp., 2153 Hillside Ave., Indianapolis 18, Ind.
 Kling Metal Spinning Co., 247 Centre Street, New York, N. Y.
 Knights Co., James, The, Sandwich, Ill.
 Knopp Inc., 4224 Holden St., Oakland 8, Calif.
 Knowles Electronics, Inc., 9400 Belmont Ave., Franklin Park, Ill.
 Kobzy Tool Co., 1535 N. Dayton Ave., Chicago 22, Ill.
 Koch & Sons, H., Corte Madera, Calif.
 Koh-I-Noor Pencil Co., Bloomsbury, N. J.
 Koiled Kords, Inc., Box K, New Haven 14, Conn.
 Kollman Show Case Corp., Fort Wayne 1, Ind.
 Kollman Instrument Corp., Sub. of Standard Coil Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y.
 Kolton Electric Mfg. Co., 123 New Jersey Railroad Ave., Newark 5, N. J.
 Koppers Co., Inc., Koppers Bldg., Pittsburgh 19, Pa.
 Kraeuter & Co., Inc., 583 18th Ave., Newark 3, N. J.
 Kreckman Co., Herb, Kresco Antennas, Cresco, Pa.
 Krengel Mfg. Co., Inc., 227 Fulton St., New York 7, N. Y.
 Kreutzer Industries, 1835 N. Hoynes Ave., Chicago 47, Ill.
 Krohn-Hite Corp., 580 Massachusetts Ave., Cambridge 39, Mass.
 Kruger Instruments, Harold, Box 164, San Gabriel, Calif.
 Kuljian Corp., The, Electronics Div., 1200 N. Broad St., Philadelphia 21, Pa.
 Kulka Electric Mfg. Co., Inc., 633 S. Fulton Ave., Mount Vernon, N. Y.
 Kupfrian Mfg. Corp., 398 State St., Binghamton, N. Y.
 Kurman Electric Co., Inc., 191-193 Newell St., Brooklyn 22, N. Y.
 Kurz-Kasch, Inc., 1421 S. Broadway, Dayton 1, Ohio.
 Kuthe Laboratories, Inc., 730 S. 13th St., Newark 3, N. J.
 Kwikheat Mfg. Co., 3732 San Fernando Rd., Glendale 4, Calif.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.

L

L. A. Resistor Co., Inc., 14742 Armlint St., Van Nuys, Calif.
 L. A. B. Corporation, Skaneateles, N. Y.
 L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
 L-O-F Glass Fibers Co., 1801 Madison Ave., Toledo 1, Ohio.
 Labelon Tape Co., 450 Atlantic Ave., Rochester 9, N. Y.
 Laboratoire Industriel de Physique Appliquee, 67 Rue M.-A.-Colombier, Bagnolet (Seine), France.
 Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.
 Lab-Tronics, Inc., 3656 N. Lincoln Ave., Chicago 13, Ill.

Lacey Brothers Etched Circuits, 117 S. Lombard, Oak Park, Ill.
 Lake Chemical Co., 3052 W. Carroll St., Chicago 12, Ill.
 Lake Mfg. Co., 2323 Chestnut St., Oakland 7, Calif.
 Lambda Electronics Corp., 11-11 131st St., College Point 56, N. Y.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
 La Motte Chemical Products Co., Chestertown, Md.
 Lampkin Laboratories, Inc., Bradenton 1, Fla.
 Lamson & Sessions Co., 1971 W. 85th St., Cleveland 2, Ohio.
 Lamtex Industries, Inc., 51 State St., Westbury, N. Y.
 Lancaster Glass Corp., Lancaster, Ohio.
 Landis & Gyr, Inc., 45 W. 45th St., New York 36, N. Y.
 Landsverk Electrometer Co., 550 W. Garfield Ave., Glendale 4, Calif.
 Langevin Mfg. Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.
 Lansing Sound Inc., James B., 2439 Fletcher Drive, Los Angeles 26, Calif.
 Lapp Insulator Co., Inc., Radio Specialties Div., 31 Gilbert St., LeRoy, N. Y.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
 Laurehk Radio Mfg. Co., 3931 S. Wayne Rd., Wayne, Mich.
 Lavelle Rubber Co., 424 N. Wood St., Chicago 22, Ill.
 Lavoie Laboratories, Inc., Morganville, N. J.
 Lawn Electronics Co., East Freehold Road, Freehold, N. J.
 Leach Corp., Inet-Palmer Div., 4441-43 S. Santa Fe Ave., Los Angeles 58, Calif.
 Leach Corp., Leach Relay Div., 5915 Avalon Blvd., Los Angeles 3, Calif.
 Leach & Garner Co., Attleboro, Mass.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
 Lear-Romec Div. of Lear, Inc., Abbe Rd., Elyria, Ohio.
 Leclanche S. A., Yverdon, Switzerland.
 Lectromech, Inc., 5561 Northwest Highway, Chicago 30, Ill.
 Lee Electric & Mfg. Co., 2806 Clearwater St., Los Angeles 39, Calif.
 Lee Electronic Labs., Inc., 88 Evans St., Watertown, Mass.
 Lee Spring Co., Inc., 30 Main St., Brooklyn 1, N. Y.
 Leece-Neville Co., 1374 E. 51st St., Cleveland 3, Ohio.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Lehig Structural Steel Co., 17 Battery Place, New York 4, N. Y.
 Leighton Labs, H. W., Sunset Lane & York Rd., Hatboro, Pa.
 Leitch Engineering Corp., 326 Lincoln St., Manchester, N. H.
 Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
 LeI, Inc., 380 Oak St., Copague, N. Y.
 Leland Electric Co., The, Div. of American Machine & Foundry Co., 1501 Webster St., Dayton 1, Ohio.
 Leland, Inc., G. H., 123 Webster St., Dayton 2, Ohio.
 Lemert Engineering Co., Inc., 185 E. Jefferson St., Plymouth, Ind.
 Lenk Mfg. Co., The, 30 Cummington St., Boston 15, Mass.
 Lenkurt Electric Co., Inc., 1105 County Road, San Carlos, Calif.
 Lennard Co., Inc., P. M., P. O., Box 56, Village Station, New York 14, N. Y.
 Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
 Leonard Electric Products Co., Inc., 67 Thirty-fourth St., Brooklyn 32, N. Y.
 Lepel High Frequency Labs., Inc., 55th & 37th Ave., Woodside 77, N. Y.
 Lerco Electronics, Inc., 501 S. Varney St., Burbank, Calif.
 Lerner Plastics, Inc., 522 South Ave., Garwood, N. J.
 Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.
 Lesa, Via Bergamo 21, Milan, Italy.
 Lettine Radio Mfg. Co., 62 Berkley St., Valley Stream, N. Y.
 Leupold & Stevens Instruments, Inc., P. O. Box 5082, Portland 13, Ore.
 Lewis & Son, Inc., Louis, 3610 S. Broadway, Los Angeles 7, Calif.
 Levinthal Electronic Products, Inc., 3180 Hanover St., Stanford Industrial Park, Palo Alto, Calif.
 Lewis Co., Inc., E. B., 11 Bragg St., East Hartford 8, Conn.
 Lewis Engineering Co., 52 Rubber Ave., Naugatuck, Conn.
 Lewis & Kaufman, Ltd., P. O. Box 337, Los Gatos, Calif.
 Lewis Spring & Mfg. Corp., 2646 W. North Ave., Chicago 47, Ill.
 Lewyt Mfg. Corp., 66 Broadway, Brooklyn, N. Y.
 Leyse Aluminum Co., Kewaunee, Wis.
 Liberty Industries, 107-37 71 Ave., Forest Hills, N. Y.
 Librascope, Inc., 808 Western Ave., Glendale, Calif.
 Licon Switch & Control Div. of Illinois Tool Works, 2501 N. Keeler Ave., Chicago 39, Ill.
 Lieco, Inc., 147 Ocean Ave., Lynbrook N. Y.
 Lindberg Engineering Co., 2450 W. Hubbard St., Chicago, Ill.
 Linde Air Products Co., Division of Union Carbide and Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Lindgren & Associates, Erik A., 4515 N. Ravenswood Ave., Chicago 40, Ill.
 Lindsay Chemical Co., 272 Ann St., West Chicago, Ill.
 Ling Electronics, Inc., 5120 W. Jefferson Blvd., Los Angeles 16, Calif.
 Link Aviation, Inc., Binghamton, N. Y.
 Lion Fastener, Inc., c/o Southco, Lester, Pa.
 Lipps, Inc., Edwin A., 5485 W. Washington Blvd., Los Angeles 16, Calif.

Liquidmold Corp., The, Skillman Ave. at 36th St., Long Island City 1, N. Y.
 Littlefuse Inc., Des Plaines, Ill.
 Little, Inc., Arthur D., 30 Memorial Drive, Cambridge 42, Mass.
 Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
 Litton Engineering Laboratories, P. O. Box 949, Grass Valley, Calif.
 Litton Industries, Beverly Hills, Calif.
 Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif.
 Litton Industries of Maryland, Inc., 4910 Calvert Rd., College Park, Md.
 Livingston Electronic Corp., Livingston, N. J.
 Locke, Dept. of General Electric Co., P. O. Box 57, Baltimore 3, Md.
 Loge Sound Engineers, J. M., 2171 W. Washington Blvd., Los Angeles 18, Calif.
 London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.
 London Electric Mfg. Co., Ltd., 80 Shore Rd., Port Washington, N. Y.
 Long Packaging Co., W. D., 157 Santa Clara St., Arcadia, Calif.
 Longren Aircraft Co., 2576 W. Carson St., Torrance, Calif.
 Loral Electronics Corp., 794 E. 140th St., New York 54, N. Y.
 Lord Mfg. Co., 1635 W. 12th St., Erie, Pa.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Louthan Mfg. Co., East Liverpool, Ohio.
 Luma Electric Equipment Co., P. O. Box 132, Toledo 1, Ohio.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Lunday Associates, Inc., 694 Main St., Waltham 54, Mass.
 Luther Electronic Mfg. Co., 5728 W. Washington Blvd., Los Angeles 16, Calif.
 Luzerne Rubber Co., Muirhead Ave., Trenton, N. J.
 Lyman Electronic Corp., 12 Cass St., Springfield, Mass.
 Lynch Carrier Systems, Inc., 695 Bryant St., San Francisco 7, Calif.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.

M

MB Mfg. Co., A Div. of Textron American, Inc., 1060 State St., New Haven 11, Conn.
 M F Electronics, 122 E. 25th St., New York 10, N. Y.
 MP Engineering Co., Fairfield 3, Conn.
 M-W Laboratories, 1824 N. Milwaukee Ave., Chicago 27, Ill.
 McCormick Selp Associates, Hollister, Calif.
 McCoy Electronics Co., Mount Holly Springs, Pa.
 McDowell Electronics, Inc., P. O. Box 342, Metuchen, N. J.
 McGregor Electronic Industries, McGregor, Iowa.
 McIntosh Laboratory Inc., 2 Chambers St., Binghamton, N. Y.
 McKay Electric Co., 19790 Stahelin Ave., Detroit 19, Mich.
 McKenna Laboratories, Santa Monica 6, Calif.
 McLaughlin Corp., J. L. A., P. O. Box 529, La Jolla, Calif.
 McLean Engineering, Box 228, Princeton, N. J.
 McMillan Industrial Corp., Brownville Avenue Plant, Ipswich, Mass.
 McQuay-Norris Mfg. Co., 2320 Marconi Ave., St. Louis 10, Mo.
 Maas & Waldstein Co., 2121 McCarter Highway, Newark 4, N. J.
 Macarr, Inc., 2543 Boston Rd., Bronx 67, N. Y.
 Machinery Electrification, Inc., Northboro, Mass.
 Machlett Laboratories, Inc., Springdale, Conn.
 Mack Electric Devices, Inc., 43 Glenside Ave., Wyncote, Pa.
 Mack Electronics, Div. of Mack Trucks, Inc., 40 Leon St., Boston 15, Mass.
 Mack Electronics A Div. of Mack Trucks, Inc., Plainfield, N. J.
 MacKay Research Labs., R. R. #2, P. O. Box 401, McHenry, Ill.
 MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
 Magnadyne Co., 84 S. Water St., Port Chester, N. Y.
 Magnasyn Manufacturing Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Magnatran, Inc., P. O. Box 211, Kearny, N. J.
 Magnavox Co., The, 2131 Beuter Rd., Fort Wayne, Ind.
 Magnecord, Inc., 1101 S. Kilbourn Ave., Chicago 24, Ill.
 Magnecraft Electric Co., 3352 W. Grand Ave., Chicago 51, Ill.
 Magne-Pulse Corp., 247 Crooks Ave., Clifton, N. J.
 Magnetic Amplifiers, Inc., 632 Tinton Ave., New York 55, N. Y.
 Magnetic Analysis Corp., 42-44 Twelfth St., Long Island City 1, N. Y.
 Magnetic Core Corp., 199 Main St., Ossining, N. Y.
 Magnetic Devices, Inc., 712 East St., Frederick, Md.
 Magnetic Metals Co., Hayes Ave. at 21st St., Camden, N. J.
 Magnetic Powders Inc., 1000 Fairview Ave., Johnsonburg, Pa.
 Magnetic Research Corp., 3160 W. El Segundo Blvd., Hawthorne, Calif.
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa.

Magnetico, Inc., 18 Scudder Ave., Northport, N. Y.
 Magnetics, Inc., P. O. Box 391, Butler, Pa.
 Magnetics Research Co., Cor. Grove St. & E. Post Rd., White Plains, N. Y.
 Magnuson Engineers, Inc., 509 Emory St., San Jose 10, Calif.
 Magtrol, Inc., 38 Virginia Place, Buffalo, N. Y.
 Maico Co., Inc., 21 North 3rd St., Minneapolis, Minn.
 Maida Development Co., 214 Academy St., Hampton, Va.
 Maigne Co., O. J., 321 Pearl St., New York 38, N. Y.
 Majestic Aircraft Co., Moosup, Conn.
 Makepeace Co., D. E., Div. of Union Plate & Wire Co., Attleboro, Mass.
 Malco Tool & Mfg. Co., 4025 W. Lake St., Chicago 24, Ill.
 Mallinckrodt Chemical Works, Second and Mallinckrodt Sts., St. Louis 7, Mo.
 Mallory Battery Co., 13000 Athens Ave., Cleveland 7, Ohio.
 Mallory & Co., Inc., P. R., 34 S. Gray St., Indianapolis 6, Ind.
 Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.
 Manger Electric Co., Miller St., Stamford, Conn.
 Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
 Manning, Maxwell & Moore, Inc., Industrial Controls Div., 250 E. Main St., Stratford, Conn.
 Mansol Ceramics Co., 140 Little St., Belleville, N. J.
 Manson Laboratories, Inc., 207 Greenwich Ave., Stamford, Conn.
 Mantec, Inc., 126 Maryland St., El Segundo, Calif.
 Manufacturers Engineering & Equipment Corp., York & Sunset Lane, Hatboro, Pa.
 Marathon Battery Co., P. O. Box 298, Wausau, Wis.
 Marathon Electric Mfg. Corp., Randolph & Cherry Sts., Wausau, Wis.
 Marbette Corp., 37-21 30th St., Long Island City 1, N. Y.
 Marbon Chemical Div. of Borg-Warner Corp., 1926 W. Tenth Ave., Gary, Ind.
 Marchant Research, Inc., Sub. Marchant Calculators, Inc., 1475 Powell St., Oakland, Calif.
 Marco Industries Co., 207 S. Helena St., Anaheim, Calif.
 Marconi Instruments, 44 New St., New York 4, N. Y.
 Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.
 Marine Electric Co., 600 Fourth Ave., Brooklyn 15, N. Y.
 Marine View Electronics Inc., 28 Main St., White Plains, N. Y.
 Marlon Electrical Instrument Co., 402 Canal St., Manchester, N. H.
 Mark Products Co., 6412 W. Lincoln Ave., Morton Grove, Ill.
 Markal Co., 3052 W. Carroll Ave., Chicago 12, Ill.
 Markel & Sons, L. Frank, School House, Norristown, Pa.
 Markem Machine Co., Keene, N. H.
 Markite Corp., 155 Waverly Place, New York 14, N. Y.
 Markwik Mfg. Co., Inc., 31 Sexton Rd., Plainview, N. Y.
 Marlee Associates, Inc., Route 46, Parsippany, N. J.
 Marlin-Rockwell Corp., Jamestown, N. Y.
 Marmas Electronic Co., 703 Willow St., Chicago 14, Ill.
 Marsh Stencil Machine Co., 46 Marsh Bldg., Belleville, Ill.
 Marshall Associates, Inc., John, Box 2463, Bridgeport 8, Conn.
 Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.
 Marvillum Co., Holyoke, Mass.
 Maryland Electronic Mfg. Corp., College Park, Md.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Masonite Corp., 111 W. Washington St., Chicago 2, Ill.
 Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
 Massachusetts Gear & Tool Div. of Geartronics Corp., 30 Nashua St., Woburn, Mass.
 Master Appliance Mfg. Co., Fourth & Ontario Sts., Racine, Wis.
 Master Etching Corp., 50 Honeck St., Englewood, N. J.
 Master Mobile Mounts, Inc., 1306 Bond St., Los Angeles 15, Calif.
 Matthews & Co., Jas. H., 3926 Forbes St., Pittsburgh 13, Pa.
 Maurer Inc., J. A., 37-01 31st St., Long Island City 1, N. Y.
 Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill.
 Maxson Corp., W. L., 460 W. 34th St., New York 1, N. Y.
 Maxson Instruments, A Div. of The W. L. Maxson Corp., 47-37 Austell Place, Long Island City 1, N. Y.
 May Engineering Co., 6055 Lankershim Blvd., North Hollywood, Calif.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Measurements Corp., Boonton, N. J.
 Mechanical Felt & Textiles Co., 50 W. 18th St., Weehawken, N. J.
 Mechanical Industries Production Co., 217 Ash St., Akron 8, Ohio.
 Melectronics, 1372-74 E. Walnut St., Pasadena, Calif.
 Medal Mfg. Co., Inc., 194 E. Silver St., Sharon, Pa.
 Mega Research, P. O. Box 371, Dover, N. J.
 Melody Master Mfg. Co., 2842 N. Cicero Ave., Chicago 41, Ill.
 Mendelsohn Speedgun Co., Inc., Fourth Ave., Haskell, N. J.
 Menlo Research Laboratory, 538 Phelan Ave., San Jose, Calif.
 Mepeco, Inc., 35-37 Abbett Ave., Morristown, N. J.
 Merco Corp., 4201 Belmont Ave., Chicago 41, Ill.

Mercury Contacts, Inc., P. O. Box 615-E, Far Hills Station, Dayton 9, Ohio.
 Mercury Electronic Co., Box 450, Red Bank, N. J.
 Meridian, Inc., 880 Main St., Stamford, Conn.
 Meridian Metalcraft, Inc., 8739 S. Millersgrove Drive, Whittier, Calif.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
 Merit Plating Co., 216 E. 141st St., New York 51, N. Y.
 Merit Short Wave Diathermy Co., 2758 Whittier Blvd., Los Angeles 23, Calif.
 Metal Hydrides, Inc., Beverly, Mass.
 Metal Textile Corp., 647 E. First Ave., Roselle, N. J.
 Metal & Thermit Corp., Rahway, N. J.
 Metalcraft Inc., 65-33 Austin St., Rego Park 74, N. Y.
 Metal-Craft, Inc., Burgess Place, Mountain View, N. J.
 Metals & Controls Corp., General Plate Div., 31 Forest St., Attleboro, Mass.
 Metalphoto Corp., 6811 Superior Ave., Cleveland 3, Ohio.
 Metaplast Co., Inc., 34-51 56th St., Woodside, N. Y.
 Metaplast Corp., Davisville Rd. at Pa. Turnpike, Hatboro, Pa.
 Metavac, Inc., 45-68 162nd St., Flushing 58, N. Y.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
 Methode Mfg. Corp., 2021 W. Churchill St., Chicago 47, Ill.
 Metro Inc., R. 1. 230 Toronto Ave., Providence, R. I.
 Metro Engineering Associates, Easthampton, Mass.
 Metron Corp., 8 Coryell St., Lambertville, N. J.
 Metron Instrument Co., 432 Lincoln St., Denver 3, Colorado.
 Metronix, Inc., Mill Lane, Waterford, Conn.
 Metz Refining Co., 369 Mulberry St., Newark 2, N. J.
 Meyercord Co., 5323 W. Lake St., Chicago 44, Ill.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
 Micacraft Products Inc., 703 McCarter Highway, Newark 5, N. J.
 Micamold Electronics Mfg. Corp., 1087 Flushing Ave., Brooklyn 6, N. Y.
 Micarta Fabricators, Inc., 54 N. Clark St., Chicago 40, Illinois.
 Michigan Chemical Corp., St. Louis, Mich.
 Micro Instrument Co., 77 Trowbridge St., Cambridge 38, Mass.
 Micro Balancing, Inc., 191 Herricks Rd., Garden City Park, N. Y.
 Micro-Circuits Co., New Buffalo, Mich.
 Microdot, Inc., 220 Pasadena Ave., South Pasadena, Calif.
 Microfect Co., 2300 S. 25th St., Salem, Ore.
 Microlab, 71 Okner Parkway, Livingston, N. J.
 Micromech Mfg. Corp., 1020 Commerce Ave., Union, N. J.
 Microphase Corp., P. O. Box 1166X, Greenwich, Conn.
 Microsonics, Inc., Hingham Industrial Center, Route 3A, Hingham, Mass.
 Micro Switch Division of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
 Microtran Co., Inc., 145 E. Mineola Ave., Valley Stream, N. Y.
 Microtone Corp., The, 758 Mississippi River Blvd., St. Paul 1, Minn.
 Microtronics, Inc., Porete Ave., North Arlington, N. J.
 Microwave Associates, Inc., Burlington, Mass.
 Microwave Development Laboratories, Inc., 92 Broad St., Babson Park 57, Mass.
 Micro-Wire Stranding Co., 252 Chestnut St., P. O. Box 514, Passaic, N. J.
 Mid-Century Instrumental Corp., 611 Broadway, New York 12, N. Y.
 Midget Louver Co., 6 Wall St., Norwalk, Conn.
 Midland Industrial Finishes Corp., Dept. I-20, Waukegan, Ill.
 Midland Mfg. Co., Inc., 3155 Fiberglas Rd., Kansas City 15, Kansas.
 Midland Paint & Varnish Co., 9115 Reno Ave., Cleveland 5, Ohio.
 Mid-West Coil & Transformer Co., 1642 N. Halstead St., Chicago 14, Ill.
 Mid-West Conveyor Co., Inc., Metal Products Div., 7th & Sunshine Rd., Fairfax District, Kansas City, Kans.
 Midwest Molding & Mfg. Co., Gurnee, Ill.
 Mid-West Spring Mfg. Co., Mentone, Ind.
 Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
 Milburn, Inc., Alexander, 1241 Ridgley St., Baltimore 30, Md.
 Miles Reproductor Co., Inc., 812 Broadway, New York 3, N. Y.
 Millen Mfg. Co., 90 Summit Ave., Brookline, Mass.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Miller Associates, P. O. Box 369, Lakeville, Conn.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Miller Electric Co., 120 Main St., Pawtucket, R. I.
 Miller Instruments, Inc., William 325 N. Halstead Ave., Pasadena 8, Calif.
 Miller Electronics, 2840 Naomi St., Burbank, Calif.
 Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
 Miller Mfg. Co., M. A., 4th & Church Sts., Libertyville, Ill.
 Miller Research Laboratories, 5529 S. Fifth St., Milwaukee 7, Wis.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 3, Calif.
 Millers Falls Co., Greenfield, Mass.
 Milli-Switch Corp., 1742 Berkeley St., Santa Monica, Calif.
 Millitest Co., 88 Madison Ave., Hempstead, N. Y.
 Millivac Instrument Corp., 2315 Second Ave., Carman, P. O. Box 997, Schenectady, N. Y.
 Milman Engineering Co., 1831 Pontius, West Los Angeles, Calif.

Milwaukee Div. of Associated Spring Corp., 341 E. Erie St., Milwaukee 2, Wis.
 Milwaukee Gas Specialty Co., 730 Jackson, Milwaukee 1, Wis.
 Milwaukee Resistor Co., 700 W. Virginia St., Milwaukee 4, Wis.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
 Minatronic Corp., 14 Cliveden Place, Belle Mead, N. J.
 Minco Products, Inc., 740 Washington Ave., N., Minneapolis 1, Minn.
 Miniature Precision Bearings, Inc., Precision Park, Keene, New Hampshire.
 Miniature Switch Corp., 36-10 Oceanside Rd., Oceanside, N. Y.
 Minitron, Inc., 1105 Second St., Encinitas, Calif.
 Minneapolis-Honeywell, Boston Div., 1400 Soldiers Field Rd., Boston 15, Mass.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Avenue S., Minneapolis 8, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridway Rd., Minneapolis 13, Minn.
 Minneapolis-Honeywell Regulator Co., Industrial Div., Wayne & Windrim Aves., Philadelphia 44, Pa.
 Minneapolis-Honeywell Regulator Co., Ordnance Div., 600 2nd St., N., Hopkins, Minn.
 Minneapolis-Honeywell Regulator Co., Semiconductor Div., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Minnesota Mining & Mfg. Co., 900 Fauquier Ave., St. Paul 6, Minn.
 Minnesota Mining & Mfg. Co., Magnetic Tape Div., 900 Bush Ave., St. Paul 6, Minn.
 Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Misco Precision Casting Co., Gibbs & Larsen Sts., Whitehall, Mich.
 Miskela Infra-Red Co., The, E. 73rd & Grand Ave., Cleveland 4, Ohio.
 Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
 Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.
 Mitchell Rand Insulation Co., Inc., 51 Murray Street, New York 7, N. Y.
 Mitronics, Inc., 1290 Central Ave., Hillside, N. J.
 Mobil Electronics Mfg. Co., 1111 State Rd. 67 E., Anderson, Ind.
 Modac Div. of Airborne Instruments Laboratory, 864 Franklin Ave., Thornwood, N. Y.
 Model Engineering & Mfg. Inc., Huntington, Ind.
 Model Rectifier Corp., 1065 Utica Ave., Brooklyn 3, N. Y.
 Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
 Modern-Alre Mfg. Corp., 4436 W. Roosevelt Rd., Chicago 24, Ill.
 Modern Industries, Inc., 2601 Colorado Ave., Santa Monica, Calif.
 Mohawk Business Machines Corp., 944 Halsey St., Brooklyn 33, N. Y.
 Mohawk Electronic Research Labs., Inc., Box 126-A, RD. 4, Amsterdam, N. Y.
 Mohawk Mfg. Co., Middletown, Conn.
 Mohawk Wire & Cable Corp., 320 River St., Fitchburg, Mass.
 Moisture Register Co., 1510 W. Chestnut St., Alhambra, Calif.
 Molded Fibreglass Co., 4401 Benefit Ave., Ashtabula, Ohio.
 Molded Fiberglass Sheet Co., Ashtabula, Ohio.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Molded Products Div. of Admiral Corp., P.O. Box 338, West Chicago, Ill.
 Molding Corporation of America, 40 Church St., Pawtucket, R. I.
 Mole-Richardson Co., 937 N. Sycamore Ave., Hollywood 38, Calif.
 Molex Products Co., 9515 Southview Ave., Brookfield, Ill.
 Moloney Electric Co., 5590 Bircher Blvd., St. Louis 20, Mo.
 Mona Industries, Inc., Paterson 4, N. J.
 Monitor Products Co., 815 Fremont Ave., South Pasadena, Calif.
 Monsanto Chemical Co., Plastics Div., Springfield, Mass.
 Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.
 Moody Machine Products Co., Inc., 39 Dudley St., Providence 5, R. I.
 Moog Valve Co., Inc., Proner Airport, East Aurora, N. Y.
 Mooradian High Frequency Labs., 13 E. Fort Lee Rd., Bogota, N. J.
 Moore Electronic Labs., Inc., 98 Front St., Worcester 8, Mass.
 Moran Electronic Components, Inc., 7660 Woodbury Drive, Silver Spring, Md.
 Moran Instrument Corp., 170 E. Orange Grove St., Pasadena 3, Calif.
 Morris Co., J. I., Southbridge, Mass.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Morse Co., Frank W., 1300 Soldiers Field Rd., Boston 35, Mass.
 Moseley Co., F. L., 409 Fair Oaks Ave., Pasadena 3, Calif.
 Moser Jewel Co., Perth Amboy, N. J.
 Mosinee Paper Mills, Inc., Dept. EB-7, Mosinee, Wis.
 Mosley Electronics, Inc., 8622 St. Charles Rock Rd., St. Louis 14, Mo.
 Mossman, Inc., Donald P., Brewster, N. Y.
 Motordyne Inc., 2661 S. Myrtle Ave., Monrovia, Calif.
 Motoresearch Co., 1600 Junction Ave., Racine, Wis.
 Motorola Communications and Electronics Inc., 4501 Augusta Blvd., Chicago 51, Ill.
 Motorola, Inc., Semiconductor Products Div., 5005 E. McDowell Rd., Phoenix, Ariz.

Moulic Specialties Co., 1007 W. Washington St., Bloomington, Ill.
 Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo.
 Mt. Vernon Precision Transformer Co., 201 S. Third Ave., Mt. Vernon, N. Y.
 Moyer, C. P., 8157 Monticello Ave., Skokie, Ill.
 Muckle Mfg. Co., Owatonna 55, Minn.
 Mucon Corp., 9 St. Francis St., Newark 5, N. J.
 Mueller Electric Co., 1582H E. 31st St., Cleveland 14, Ohio.
 Mueller Laboratory, 1052 N. Allen, Pasadena, Calif.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Mullard Overseas Ltd., Equipment Div., Century House, Shaftesbury Ave., London W. C. 2, England.
 Mullenbach Div. of Electric Machinery Mfg. Co., 2100 E. 27th St., Los Angeles 58, Calif.
 Multicore Sales Corp., 80 Shore Rd., Port Washington, N. Y.
 Multicore Solders Ltd., Multicore Works, Maylands Ave., Hemel Hempstead, Hertfordshire, England.
 Multi-Products Co., 21470 Coolidge Highway, Oak Park 37, Mich.
 Mundt & Sons, Charles, 53 Fairmount Ave., Jersey City 4, N. J.
 Murex Ltd., Rainham-Essex-England.
 Murphy & Miller Inc., 1322 S. Michigan Ave., Chicago 5, Ill.
 Murray Mfg. Corp., 1250 Atlantic Ave., Brooklyn 16, N. Y.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
 Muter Company, The, 1255 S. Michigan Ave., Chicago 5, Ill.
 Mutron Corp., 125 Perkins Ave., Brockton, Mass.
 Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 Mycalex Corp. of America, 125 Clifton Blvd., Clifton, N. J.
 Mycalex Electronics Corp., 125 Clifton Blvd., Clifton, N. J.
 Mycalex Tube Socket Corporation, 125 Clifton Blvd., Clifton, N. J.
 Myers & Sons, Inc., E. A., P.O. Box 8032, Radioear Building, Pittsburgh 16, Pa.
 Mykroy, Inc., Wheeling, Ill.
 Mystic Transformers Inc., 63 Swanton St., Winchester, Mass.
 Mystik Adhesive Products Co., 2635 N. Kildare, Chicago, Ill.
 Mytron Mfg. Co., 4528 Brazil St., Los Angeles 39, Calif.

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NJE Corporation, 345 Carnegie Ave., Kenilworth, N. J.
 NRD Instrument Co., 6425 Etzel Ave., St. Louis 14, Mo.
 NRC Equipment Corp., 160 Charlemont St., Newton 61, Mass.
 N. R. K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 Nader Mfg. Co., 2661 Myrtle Ave., Monrovia, Calif.
 Nagel-Chase Mfg. Co., 2811 N. Ashland Ave., Chicago 13, Ill.
 Nagos Associates, Inc., Littleton, Mass.
 Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.
 Narda Corp., 160 Herricks Rd., Mineola, N. Y.
 Narrow Fabric Co., The, Reading, Pa.
 National Acme Co., 170 E. 131st St., Cleveland 8, Ohio.
 National Aeronautical Corp., Commerce Drive, Ft. Washington Industrial Park, Fort Washington, Pa.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 National Capacitor Co., 18 Webster St., Brookline, Mass.
 National Carbon Co., Division of United Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 National Cash Register Co., Dayton 9, Ohio.
 National Ceramic Co., 400 Southard St., Trenton 2, N. J.
 National Coil Co., P. O. Box 1237, Sheridan, Wyo.
 National Company, Inc., 61 Sherman St., Malden 48, Mass.
 National Electric Coil Co., Columbus 16, Ohio.
 National Electric Controller Co., 7070 Glenwood Ave., Chicago 26, Ill.
 National Electric Products Co., 140 Stanwix St., Pittsburgh 22, Pa.
 National Electronics, Inc., Geneva, Ill.
 National Electronics Laboratories, Inc., 1713 Kalorama Rd., N. W., Washington 9, D. C.
 National Engineering Products, Inc., 435 Washington Bldg., Washington 5, D. C.
 National Fabricated Products Div. of Hoffman Electronics Corp., 2650 W. Belden Ave., Chicago 47, Ill.
 National Felt Co., 76 Summer St., Boston 10, Mass.
 National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 National Lock Washer Co., 40 Hermon St., Newark 5, N. J.
 National Moldite Co., 1410 Chestnut Ave., Hillside 5, N. J.
 National Screw & Mfg. Co., The, Cleveland 4, Ohio.
 National Spectrographic Laboratories, Inc., 6300 Euclid Ave., Cleveland 3, Ohio.
 National Television Tube, Inc., Route 46, Saddle Brook, N. J.
 National Tel-Tronics Corp., 35 St. Casimir Ave., Yonkers, N. Y.
 National Union Electric Corp., Electronics Div., Bloomington, Ill.
 National Video Corp., 4300 W. 47th St., Chicago 32, Ill.
 National Vulcanized Fibre Co., Wilmington, Del.
 Natvar Corp., Woodbridge, N. J.

Navigation Computer Corp., 1621 Snyder Ave., Philadelphia 45, Pa.
 Navigation Electronics Corp., 11616 Hart St., North Hollywood, Calif.
 Naylor Laboratories, Inc., E.V., 2 Yennicock Ave., Port Washington, N. Y.
 Naz-Dar Co., 465 Milwaukee Ave., Chicago 10, Ill.
 Nebel Laboratory, R. E., 1634 E. 12th St., Brooklyn 29, N. Y.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 Nelson Instrument Co., 607 Howard St., Evanston, Ill.
 Nelson Vacuum Pump Co., George F., 2133 Fourth St., Berkeley 10, Calif.
 Nemeth, Inc., 2223 S. Carmelina Ave., Los Angeles 64, Calif.
 Nems-Clarke, Inc., Silver Spring, Md.
 Neosil Products Div. of Rubber Associates, Inc., 745 Fifth Ave., New York 22, N. Y.
 Nesor Alloy Products Co., 282 Halsey St., Newark 2, N. J.
 Network Mfg. Corp., 213 W. Fifth St., Bayonne, N. J.
 Neutronic Associates, 93-14 101st Ave., Ozone Park 17, N. Y.
 Neutronics Research Co., 165 Lake St., Waltham, Mass.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
 New Departure Div., General Motors Corp., Bristol, Conn.
 New England Electrical Works, Inc., Lisbon, N. H.
 New England Etching & Plating Co., 25 Spring St., Holyoke, Mass.
 New England Laminates Co., Inc., P. O. Box 43, 481 Canal St., Stamford, Conn.
 New England Oven & Furnace Co., Post Rd., Orange, Conn.
 New England Scientific Instruments Co., Box 408, Cambridge 39, Mass.
 New England Tape Co., Hudson, Mass.
 New England Transformer Co., 47 McGrath Highway, Somerville, Mass.
 New Hampshire Ball Bearings, Inc., Peterborough, N. H.
 New Hermes Engraving Machine Corp., 13-19 University Place, New York 3, N. Y.
 New Jersey Wood Finishing Co., Amboy Ave., Woodbridge, N. J.
 New Jersey Zinc Co., 160 Front St., New York 38, N. Y.
 New London Instrument Co., P. O. Box 189, New London, Conn.
 New Process Metals, Inc., 45-65 Manufacturers Place, Newark 5, N. J.
 New Products Co., Box 66101, Los Angeles 66, Calif.
 New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.
 New York Coil Co., Phoenixville 12, Pa.
 New York Solder Co., 684 E. 133rd St., New York 54, N. Y.
 New York Transformer Co., Inc., Third Ave., Alpha, N. J.
 Newark Spinning & Stamping Co., 472 Bloy St., Hillside 5, N. J.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
 Newcomb Spring Corp., 177 E. Hawthorne Ave., Valley Stream, N. Y.
 Ney Co., J. M., 179 Elm St., Hartford, Conn.
 Niagara Electron Laboratories, Andover, N. Y.
 Nichols & Clark, Inc., P. O. 321 Newburyport Turnpike, Danvers, Hawthorne, Mass.
 Nickel Cadmium Battery Corp., Easthampton, Mass.
 Nielsen Hardware Corp., 770 Wethersfield Ave., Hartford 14, Conn.
 Niemand Bros., Inc., 37-03 35th Ave., Long Island City 1, N. Y.
 Nilsen Mfg. Co., Addison, Ill.
 Nilsson Electrical Laboratory, Inc., 103 Lafayette St., New York 13, N. Y.
 Noble & Westbrook Mfg. Co., 27 Westbrook St., East Hartford 8, Conn.
 Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
 Nonotuck Mfg. Co., Holyoke, Mass.
 Nopco Chemical Co., Plastics Div., Harrison, N. J.
 Norden-Ketay Corp., 58 Commerce Rd., Stamford, Conn.
 Norrich Plastics Corp., 35 E. 32nd St., New York, N. Y.
 Norrman Laboratories, Ernst, Williams Bay, Wis.
 North Atlantic Industries, Inc., 603 Main St., Westbury, N. Y.
 North American Electric Lamp Co., 1014 Tyler St., St. Louis 6, Mo.
 North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
 North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
 North American Research Labs., Inc., 725 Lexington Ave., Kenilworth, N. J.
 North Electric Co., 553 S. Market St., Gallon, Ohio.
 North Hills Electric Co., Inc., 402 Sagamore Ave., Mineola, N. Y.
 North Shore Nameplate, Inc., 214-27 Northern Blvd., Bayside 61, N. Y.
 Northeast Electronics Corp., P. O. Box 425, Municipal Airport, Concord, N. H.
 Northeast Scientific Corp., 617 Concord Ave., Cambridge 38, Mass.
 Northeastern Engineering, Inc., Manchester, N. H.
 Northern Electronic & Vacuum Industries, St. Sauveur Des Monts P. Q., P. O. Box 105, Canada.
 Northern Engineering Laboratories, Inc., 372 Wilmet Ave., Burlington, Wis.
 Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.
 Northern Mfg. Co., 38 Spring St., Newark, N. J.
 Northern Metal Products Co., 9597 W. Grand Ave., Franklin Park, Ill.
 Northern Plastics Corp., Second & Market Sts., La Crosse, Wis.
 Northern Radio Co., Inc., 143-145 W. 22nd St., New York 11, N. Y.
 Norton Associates, Inc., P. O. Box 96, Garden City, N. Y.
 Norton Co., 1 New Bond St., Worcester 6, Mass.

Nortronics Co., Inc., 1015 S. Sixth St., Minneapolis 4, Minn.
 Notheffer Winding Labs., Inc., P. O. Box 455, Trenton, N. J.
 Novelty Bias Binding Co., Plastics Div., Chelsea, Mass.
 Nuclear-Chicago Corp., 223 W. Erie St., Chicago 10, Ill.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Nuclear Development Lab., P. O. Box 7034, Kansas City, Mo.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 Nuclear Measurements Corp., 2460 N. Arlington Ave., Indianapolis 5, Ind.
 Nuclear Research Corp., Southampton, Pa.
 Nuclear Specialty Co., Center Moriches, N. Y.
 Nucleonic Company of America, 196 De Graw St., Brooklyn 31, N. Y.
 Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif.
 Nugent Electronics Co., New Albany, Ind.
 Numberall Stamp & Tool Co., Huguenot Park, Staten Island 12, N. Y.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 Nylok Corp., The, 611 Industrial Ave., Paramus, N. J.
 Nyttite Corp. of America, 2331 Morris Ave., Union, N. J.

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O K Electronics Corp., 7 Hunt Place, Nutley, N. J.
 O & S Research, Inc., 1811 Bannard St., Riverton, N. J.
 Oak Mfg. Co., 1260 N. Clybourn Ave., Chicago 10, Ill.
 Oaktron Electric Co., Tinley Park, Ill.
 O'Brien Electric Corp., 5614 Santa Monica Blvd., Hollywood 38, Calif.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Offer Electronics, 5320 N. Kedzie Ave., Chicago 25, Ill.
 Ohio-Apex Div., Food Machinery & Chemical Corp., Nitro, W. Va.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
 Ohio Crankshaft Co., Tocco Div., 3800 Harvard Ave., Cleveland 5, Ohio.
 Ohio Div. of Associated Spring Corp., 1825 E. First St., Dayton 3, Ohio.
 Ohio Seamless Tube Div. of Copperweld Steel Co., Shelby, Ohio.
 Ohmite Mfg. Co., 3601 Howard St., Skokie, Ill.
 Ohmweve Co., 43 Darcy St., West Hartford 6, Conn.
 Okonite Co., The, Canal Street, Passaic, N. J.
 Olesen Co., Otto K., 1534 Cahuenga, Hollywood 28, Calif.
 Olin Mathieson Chemical Corp., 460 Park Ave., New York 22, N. Y.
 Olympic Metal Products Co., Inc., Third Ave., Alpha, M. J.
 Olympic Plastics Co., Inc., 3471 S. La Cienega Blvd., Los Angeles 16, Calif.
 Olympic Radio & Television Co., 34-01 38th Ave., Long Island City, N. Y.
 Omco, U. S. 93 & Las Palomas St., Kingman, Ariz.
 Omega Electronics Co., 355 Atlantic Ave., Brooklyn 17, N. Y.
 Omega Instrument Co., Box 495M, Pasadena, Calif.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
 Onan & Sons Inc., D. W., University Ave., at 25th St., S. E. Minneapolis 14, Minn.
 O'Neil-Irwin Mfg. Co., 316 Eighth Ave., Lake City, Minn.
 Onondago Pottery Works, Electronics Div., 1858 W. Lafayette St., Syracuse, N. Y.
 Opad Electric Co., 69-5 Murray St., New York 7, N. Y.
 Optimized Devices, Inc., P. O. Box 38, Gedney Station, White Plains, N. Y.
 Optron Corp., 3526 State St., Santa Barbara, Calif.
 Orange Products Inc., 554 Mitchell St., Orange, N. J.
 Orbitran Co., Lakeside, Calif.
 Oregon Electronic Mfg. Co., 2232 E. Burnside St., Portland 15, Ore.
 Organic Development Corp., Spectra-Strip Div., 10052 Larson Ave., Garden Grove, Calif.
 Orradio Industries, Inc., Shamrock Circle, Opelika, Ala.
 Ortho Filter Corp., 198 Albion Ave., Paterson 2, N. J.
 Oryx Co., 9015 Wilshire Blvd., Beverly Hills, Calif.
 Osborn Products, Glen Ellyn, Ill.
 Osborne Electric Co., 712 S. E. Hawthorne Blvd., Portland 14, Ore.
 Oster Mfg. Co., John, Avionics Div., 1 N. Main St., Racine, Wis.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N. Y.
 Owen Laboratories, Inc., 55 Beacon Place, Pasadena, Calif.
 Owens-Corning Fiberglass Corp., 598 Madison Ave., New York 22, N. Y.
 Owens-Illinois Closure & Plastics Div., P. O. Box 1035, Toledo 1, Ohio.
 Oxford Electric Corp., 3911 S. Michigan Avenue, Chicago 15, Ill.
 Ozalid Div. of General Aniline & Film Corp., 770 Anso Rd., Johnson City, N. Y.

P

P.B.R. Manufacturing Co., H & Luzerne Sts., Philadelphia 24, Pa.
 P I C Design Corp., 477 Atlantic Ave., East Rockaway, N. Y.
 PSP Engineering Co., 8608 Otis St., South Gate, Calif.
 Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.

Pacific Automation Products, Inc., 1000 Air Way, Glendale 1, Calif.
 Pacific Electro-Nuclear Co., 11818 Teale St., Culver City, Calif.
 Pacific Moulded Products, 905 E. 59th St., Los Angeles, Calif.
 Pacific Relays, Inc., 12027 Vose St., North Hollywood, Calif.
 Pacific Resistor Co., 1881 Sepulveda Blvd., Los Angeles 25, Calif.
 Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.
 Pacific Semiconductors, Inc., 10451 W. Jeerson, Culver City, Calif.
 Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 64, Calif.
 Pacific Universal Products Co., 168 Vista Ave., Pasadena 8, Calif.
 Packard-Bell Co., 12333 W. Olympic Blvd., Los Angeles 64, Calif.
 Painton Div. of British Electronics Sales Co., Inc., Oakland Garden Sta., Flushing 64, N. Y.
 Paisley Products, Inc., 630 W. 51st St., New York 19, N. Y.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Palnut Co., The, 77 Glen Rd., Mountainside, N. J.
 Pameco, Mill Lane, Waterford, Conn.
 Pan American Trade Development Corp., 2 Park Ave., New York 16, N. Y.
 Pan-Electronics Corp., Box 404, Griffin, Ga.
 Panographic Corp., P. O. Box 254, Caldwell, N. J.
 Panelyte Div., St. Regis Paper Co., 261 Madison Ave., New York 16, N. Y.
 Panoramic Radio Products, Inc., 10 South Second Ave., Mt. Vernon, N. Y.
 Pantek Co., Box 212, El Segundo, Calif.
 Par-Metal Products Corp., 32-62 49th Street, Long Island City 3, N. Y.
 Paragon Electric Co., Two Rivers, Wisconsin.
 Paragon-Revolute Corp., 71 South Ave., Rochester 4, N. Y.
 Parameters, Inc., 195 Herricks Rd., New Hyde Park, N. Y.
 Paramount Paper Tube Co., 614 Lafayette St., Fort Wayne, Ind.
 Paraplex Mfg. Co., Inc., 10068 Franklin Ave., Franklin Park, Ill.
 Paravox, Inc., 2056 E. 4th St., Cleveland 15, Ohio.
 Parisian Novelty Co., 3510 South Western Ave., Chicago 9, Ill.
 Park Nameplate Co., Inc., 34-10 Linden Place, Flushing 54, N. Y.
 Parker-Kalon Division of General American Transportation Corp., Clifton, N. J.
 Parsons Co., Ralph M., Electronics Div., 151 S. DeLacey Ave., Pasadena, Calif.
 Partridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England.
 Patton-MacGuer Co., 17 Virginia Avenue, Providence 5, R. I.
 Paul & Beekman, Inc., 1801 Cortland St., Philadelphia 40, Pa.
 Paul & Stein Bros., Inc., F. H., 235 Fifth Ave., New York 16, N. Y.
 Pearce-Simpson, Inc., 3023 Coral Way, Miami 34, Fla.
 Pearson Electronics, 1200 Bryant St., Palo Alto, Calif.
 Pease Co., C. F., 2601 W. Irving Park Rd., Chicago 111, Ill.
 Pease & Curran, Inc., 780 Allens Ave., Providence, R. I.
 Peck & Harvey Mfg. Corp., 5650 N. Western Ave., Chicago 45, Ill.
 Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.
 Peeco Corp., 2760 Whittier Blvd., Los Angeles 23, Calif.
 Peer, Inc., Benton Harbor, Mich.
 Peerless Electrical Div. of Altec Lansing Corp., 1515 S. Manchester Ave., Anaheim, Calif.
 Peerless Electronics Inc., 5338 Alhambra Ave., Los Angeles 32, Calif.
 Peerless Photo Products, Inc., Shoreham, N. Y.
 Peerless Products Industries, 812 N. Pulaski Ave., Chicago 51, Ill.
 Pegasus Laboratories, Inc., 3692 Eleven Mile Rd., Berkeley, Mich.
 Peirce Dictation Systems, 5900 Northwest Highway, Chicago 31, Ill.
 Pelican Plastics, Inc., Homer, La.
 Penfield Mfg. Co., 19 High School Ave., Meriden, Conn.
 Penn Engineering & Mfg., Corp., Box 311, Doylestown, Pa.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 34, Pa.
 Penn Keystone Corp., 18 Elizabeth St., West Conshohocken, Pa.
 Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
 Penn Tran Corp., Belefonte, Pa.
 Pennsylvania Testing Lab., Inc., Doylestown, Pa.
 Penta Laboratories, Inc., 312 N. Nopal St., Santa Barbara, Calif.
 Pentron Corp., 777 S. Tripp Ave., Chicago 24, Ill.
 Perfection Electric Co., 2635 S. Wabash Ave., Chicago 16, Ill.
 Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.
 Performance Measurements Co., 15310 W. McNichols, Detroit 35, Mich.
 Perkin-Elmer Corporation, The, Main Ave., Norwalk, Conn.
 Perkin Engineering Corp., 345 Kansas St., El Segundo, Calif.
 Perkin Machine & Gear Co., Special Machinery Div., West Springfield, Mass.
 Permacel Tape Corp., U. S. Highway 1, New Brunswick, N. J.
 Permag Corp., 214 Taaffe Place, Brooklyn 5, N. Y.
 Permo Inc., 6415 Ravenswood Ave., Chicago 26, Ill.
 Permoflux Corp., 4900 W. Grand Ave., Chicago 39, Ill.

Permonite Mfg. Co., 444 N. Lake Shore Drive, Chicago 11, Ill.
 Permutit Co., 330 W. 42nd St., New York 36, N. Y.
 Peschel Electronics, Inc., 13 Garden St., New Rochelle, N. Y.
 Peter Partition Corp., 124 Boerum Place, Brooklyn 1, N. Y.
 Peters-Dalton, Inc., 17872 Ryan Rd., Detroit 12, Mich.
 Peterson & Neville, Inc., 365 Dorchester Ave., Boston, Mass.
 Peterson Radio Co., 2800 West Broadway, Council Bluffs, Iowa.
 Pfanstiehl Chemical Corp., 104 Lake View Ave., Waukegan, Ill.
 Pfefer Products, 3901 W. 54th St., Los Angeles 43, Calif.
 Phalo Plastics Corp., 25 Foster St., Worcester 8, Mass.
 Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Phelps Dodge Copper Products Co., 300 Park Ave., New York 22, N. Y.
 Phelps Dodge Copper Products Corp., Inca Mfg. Div., Fort Wayne, Ind.
 Pheoli Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.
 Philadelphia Quartz Co., 1146K Public Ledger Bldg., Philadelphia 6, Pa.
 Philadelphia Scientific Glass Co., Quakertown, Pa.
 Philamon Laboratories, Inc., 90 Hopper St., Westbury, N. Y.
 Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass.
 Philco Corp., C & Tloga Sts., Philadelphia 34, Pa.
 Philco Corp., Government & Industrial Div., 4700 Wilsahickon Ave., Philadelphia 44, Pa.
 Phillips Electronics, Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
 Phillips Control Corp., 59 W. Washington St., Joliet, Ill.
 Phillips & Hiss Co., Inc., 1155 N. McCadden Place, Hollywood 38, Calif.
 Phillips Mfg. Co., 3406 W. Touhy Ave., Chicago 45, Ill.
 Phillips Process Co., Inc., 192 Mill St., Rochester 14, N. Y.
 Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.
 Philson Mfg. Co., Inc., 60-66 Sackett St., Brooklyn 31, N. Y.
 Phosphor Bronze Corp., 25 Franklin St., Seymour, Conn.
 Photo Chemical Products, Inc., 999A Stewart Ave., Garden City, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Photobell Corp., Inc., 43 Vesey St., New York 7, N. Y.
 Photocircuits Corp., Glen Cove, N. Y.
 Photocon Research Products, 421 N. Altadena Drive, Pasadena, Calif.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Photoswitch Div., Electronics Corp. of America, One Memorial Drive, Cambridge 42, Mass.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
 Photon Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
 Physics Research Labs, Inc., P. O. Box 555, Hempstead, N. Y.
 Pickard & Burns, Inc., Needham, Mass.
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
 Pickering & Co., 309 Woods Ave., Oceanside, N. Y.
 Piezo Products Co., Whitney St., Sherborn, Mass.
 Pilgrim Screw Corp., 259 Dexter St., Providence, R. I.
 Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
 Pimex Corp., 18 E. 60th St., New York 22, N. Y.
 Pioneer-Central Division, Bendix Aviation Corp., Davenport, Iowa.
 Pioneer Electronics Corp., 2235 S. Carmelina, West Los Angeles, Calif.
 Pioneer Gen-E-Motor Corp., 5841 W. Dickens, Chicago 39, Ill.
 Pioneer Machine Works, Inc., 6136 Adam St., West New York, N. J.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
 Pittsburgh Lectrodryer Div. of McGraw-Edison Co., 300 32nd St., Pittsburgh 30, Pa.
 Pittsburgh Plate Glass Co., 1 Gateway Center, Pittsburgh 22, Pa.
 Pix Mfg. Co., Inc., 81A Hudson St., Newark, N. J.
 Plamondron Magnetics Co., 1850 W. Hubbard St., Chicago 22, Ill.
 Planet Mfg. Corp., 225 Belleville Ave., Bloomfield, N. J.
 Plasteck, Inc., Poteau, Okla.
 Plastic Capacitors, Inc., 2620 N. Clybourn Ave., Chicago 14, Ill.
 Plastic-Chem Corp., 5725 S. Dixie Highway, Miami 43, Fla.
 Plastic Mold & Engineering Co., Inc., 157 Clifford St., Providence 3, R. I.
 Plastic Wire & Cable Corp., Jewett City, Conn.
 Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.
 Plastics Engineering Co., 1607 Geale Ave., Sheboygan, Wis.
 Plastold Corp., 42-61 24th St., Long Island City 1, N. Y.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass.
 Pneumafill Corp., Charlotte, N. C.
 Poinsettia Co., Inc., 112 Cedar Ave., Pittman 6, N. J.
 Polan Industries Inc., P. O. Box 1720, Huntington, W. Va.
 Polard Electronics Corp., 43-20 34th St., Long Island City 1, N. Y.
 Pollak Corp., Joseph, 75-99 Freeport St., Dorchester 22, Mass.
 Polyken Sales Div. of The Kendall Co., 309 W. Jackson Blvd., Chicago 6, Ill.
 Polymer Corporation, The, Reading, Pa.
 Polymica & Insulation Co., 683 Main St., Willimantic, Conn.
 Polyphase Instrument Co., East Fourth St., Bridgeport, Penna.
 Poly-Scientific Corp., Blacksburg, Va.

Polytechnic Research & Development Co., Inc., 202 Tillary St., Brooklyn 1, N. Y.
 Polytren Engineering Inc., P. O. Box 5024, Middle River 20, Md.
 Polytronic Research Inc., 7660 Woodbury Drive, Silver Spring, Md.
 Pomona Electronics Co., Inc., 1126 W. Fifth Ave., Pomona, Calif.
 Popper & Sons, Inc., 300 Fourth Ave., New York 10, N. Y.
 Porcelain Products, Inc., Findlay, Ohio.
 Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
 Ports Mfg. Co., 3265 E. Belmont Ave., Fresno 2, Calif.
 Positive Lock Washer Co., 181 Miller St., Newark 5, N. J.
 Post Co., Frederick, 3650 N. Avondale Ave., P. O. Box 803, Chicago 90, Ill.
 Post Machinery Co., Electronic Products Div., 140 Elliott St., Beverly, Mass.
 Potter Aeronautical Corp., Route #22, Union, N. J.
 Potter & Brumfield, Inc., Princeton, N. J.
 Potter Co., The, 1950 Sheridan Rd., North Chicago, Ill.
 Potter Instrument Co., 115 Cutter Mill Rd., Great Neck, N. Y.
 Poughkeepsie Coil Co., Inc., 24 Charlotte St., Binghamton, N. Y.
 Power Designs, Inc., 89-25 130th St., Richmond Hill 18, N. Y.
 Power Equipment Co., 5740 Nevada, East, Detroit 34, Mich.
 Power Industries Co., 2611 S. Indiana Ave., Chicago 16, Ill.
 Power Sources, Inc., Northwest Industrial Park, Burlington, Mass.
 Power Supplies, Inc., 1007 Olive St., Highland, Ill.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Powers Co., J. J., 1317 S. Fifth Ave., Maywood, Ill.
 Pratt & Whitney Co., Inc., Charter Oak Blvd., West Hartford 1, Conn.
 Precious Metal Platers, The, P. O. Box 228, Fairfield, Conn.
 Precision Development Corp., 2 Nell Court, Oceanside, N. Y.
 Precision Instrument Parts Co., 4520 San Fernando Rd., Glendale 4, Calif.
 Precision Measurements Co., R.D. #1, Millbrook Rd., Flemington, N. J.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Precision Capacitors, Inc., 150 W. Cypress Ave., Burbank, Calif.
 Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
 Precision Electronic Components Ltd., 50 Wingold Ave., Toronto 10, Ont.
 Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
 Precision Electroplating Co., 519 S. Oakley Blvd., Chicago 12, Ill.
 Precision, Inc., 730 Lyndale Ave., N., Minneapolis, Minn.
 Precision Line, Inc., 63 Main St., Maynard, Mass.
 Precision Metal Products Co., of Malden, 41 Elm St., Stoneham 80, Mass.
 Precision Metalsmiths, Inc., 1081 E. 200th St., Cleveland 17, Ohio.
 Precision Paper Tube Co., 2041 W. Charleston St., Chicago 47, Ill.
 Precision Piezo Service, 427 Mayflower St., Baton Rouge, La.
 Precision Products Co., Inc. of Waltham, 26 Bedford St., Waltham 54, Mass.
 Precision Radiation Instruments, Inc., 4223 W. Jefferson Blvd., Los Angeles 16, Calif.
 Precision Resistor Co., 109 U. S. Highway #22, Hillside 8, N. J.
 Precision Tube Co., Inc., North Wales, Pa.
 Pels Engraving Machine Co., H. P., 651 U. S. Highway 22, Hillside, N. J.
 Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.
 Premier Electronic Laboratories, 382 Lafayette St., New York 3, N. Y.
 Premier Instrument Corp., 52 W. Houston St., New York 12, N. Y.
 Premier Metal Products Co., 337 Manida St., Bromfield 59, N. Y.
 Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
 Prescott Television Co., 7352 Beverly Blvd., Los Angeles 36, Calif.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Pressman Associates, 7803 Farnsworth St., Philadelphia 15, Pa.
 Presto Recording Corp., P. O. Box 500, Paramus, N. J.
 Price Electric Corp., Frederick, Md.
 Printed Cellophane Tape Co., 521 N. LaBrea Ave., Los Angeles 36, Calif.
 Printed Circuit Div., LaPointe Electronics Inc., Rockville, Conn.
 Printed Electronics Corp., 7 North Ave., Natick, Mass.
 Printold, Inc., 93 Mercer St., New York 12, N. Y.
 Probescope Co., 44-05 30th Ave., Long Island City 3, N. Y.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 Prodell, Inc., 307 Bergen Ave., Kearny, N. J.
 Production Instrument Co., 710 W. Jackson Blvd., Chicago 6, Ill.
 Production Research Corp., Thornwood, N. Y.
 Production Tool & Fixture Co., 37 W. Main St., Oyster Bay, N. Y.
 Progress Electronics Co., 296 Broadway, New York 7, N. Y.
 Progressive Mfg. Co., 50 Norwood St., Torrington, Conn.
 Protective Coatings Corp., 596 River Rd., Clifton, N. J.
 Pruy-Moore, Inc., 1338 Cota Ave., Long Beach 13, Calif.

Pulse Engineering, Inc., 2657 Spring St., Redwood City, Calif.
 Pulse Techniques, Inc., 1411 Palisade Ave., West Englewood, N. J.
 Pye Telecommunications Ltd., Newmarket Rd., Cambridge, England.
 Pyle-National Co., 1334 N. Kostner Ave., Chicago 51, Ill.
 Pyramid Electric Co., 1445 Hudson Blvd., North Bergen, N. J.
 Pyramid Instrument Corp., 630 Merrick Rd., Lynbrook, N. Y.
 Pyroferic Co., Inc., 621 E. 216th St., New York 67, N. Y.
 PyroFHM Resistor Co., Inc., 8 Whippany St., Morristown, N. J.

Q

QRK Electronic Products, 445 N. Circle Drive, Fresno 4, Calif.
 Q.V.S. Inc., 20 N. 15th St., East Orange, N. J.
 Quadriga Mfg. Co., 213 W. Grand Ave., Chicago 10, Ill.
 Quaker City Felt Co., 1734 Ludlow St., Philadelphia 3, Pa.
 Quaker City Gear Works, Red Lion & Philmont Rds., Bethayers, Pa.
 Quality Components, Inc., St. Marys, Pa.
 Quality Hermetics, Ltd., 45 Hollinger Rd., East York, Toronto, Ontario.
 Quality Products Co., 287 Charles St., Providence, R. I.
 Quam-Nichols Co., Marquette Rd., & Prairie Ave., Chicago 37, Ill.
 Quantum Electronics, Inc., 2312 Wisconsin St. NE, Albuquerque, N. M.
 Qutronic Semi-Conductor Corp., 525 Broadway, New York 12, N. Y.
 Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y.

R

R. B. M. Division, Essex Wire Corp., Logansport, Ind.
 R.C.L. Mfg. Co., New Jersey Ave., Riverside 1, N. J.
 REF Manufacturing Corp., Jericho Turnpike, Mineola, N. Y.
 R-F Electronics, Inc., Div. of Electro Switch Corp., Weymouth, Mass.
 R-J Audio Products, Inc., 80 Shore Rd., Port Washington, N. Y.
 RS Electronics Corp., 435 Portage Ave., P. O. Box 368, Station A, Palo Alto, Calif.
 Racon Electric Co., 1261 Broadway, New York 1, N. Y.
 Radar Design Corp., 210 Fifth Ave., New York 16, N. Y.
 Radar Engineers, 403 E. 45th St., Seattle 5, Wash.
 Radar Relay, Inc., 2120 Pontius Ave., Los Angeles 25, Calif.
 Radex Corp., 2076 N. Elston Avenue, Chicago 14, Ill.
 Radial Cutter Corp., 831 Bond St., Elizabeth, N. J.
 Radiant Corp., The, 3455 Vega Ave., Cleveland 13, Ohio.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
 Radiation, Inc., Melbourne, Fla.
 Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Radio Condenser Co., Camden, N. J.
 Radio Cores, Inc., 9540 Tulley Ave., Oak Lawn, Ill.
 Radio Corp. of America, Consumer Products Div., Camden 3, N. J.
 Radio Corp. of America, Engineering Products Div., Camden, N. J.
 Radio Corp. of America, RCA Electron Tube Div., 415 S. Fifth St., Harrison, N. J.
 Radio Craftsman, Inc., 4223 W. Jefferson Blvd., Los Angeles 16, Calif.
 Radio Development & Research Corp., 100 Pennsylvania Ave., Paterson 3, N. J.
 Radio Engineering Labs., Inc., 36-40 37th St., Long Island City 1, N. Y.
 Radio Frequency Co., Inc., 44 Park St., Medfield, Mass.
 Radio Frequency Labs., Inc., Boonton 2, N. J.
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.
 Radio Mfg. Engineers, Inc., 501 Walnut St., Washington, Ill.
 Radio Materials Corp., 3325 N. California Ave., Chicago 18, Ill.
 Radio Merchandise Sales, Inc., 2016 Bronxdale Ave., New York 62, N. Y.
 Radio Receptor Co., 240 Wythe Ave., Brooklyn 11, N. Y.
 Radio Specialty Mfg. Co., 2023 S.E. 6th Ave., Portland 14, Ore.
 Radioactive Products Inc., 2421 Wolcott, Ferndale, Mich.
 Radion Corp., 1130 Wisconsin Ave., Chicago 14, Ill.
 Radionic Transformer Co., 411 S. Sangamon St., Chicago 7, Ill.
 Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32, Ohio.
 Rae Motor Corp., P. O. Box 269, Racine, Wis.
 Railway Communications, Inc., 9351 E. 59th St., Raytown, Mo.
 Ram Electronics, Inc., 600 Industrial Ave., Paramus, N. J.
 Ram Meter, Inc., 1100 Hilton Rd., Ferndale, Detroit 20, Mich.

Ramy Mfg. Co., 1624 E. First St., Los Angeles 23, Calif.
 Randall, Inc., Douglas, 6 Pawcatuck Ave., Westerly, R. I.
 Rangertone, Inc., 73 Winthrop St., Newark 4, N. J.
 Ransom Research, P. O. Box 382, San Pedro, Calif.
 Rapid Electric Co., 2881 Middletown Rd., Bronx 61, N. Y.
 Rapid Specialties Co., 327 W. Huron Street, Chicago 10, Ill.
 Rare Earths, Inc., Box 488, Pompton Plains, N. J.
 Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
 Rattray & Co., Inc., George, 116-08 Myrtle Ave., Richmond Hill, N. Y.
 Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.
 Rauland Corp., 4545 N. Knox Ave., Chicago 41, Ill.
 Raway Bearing Co., 4-8 Forsyth St., New York 2, N. Y.
 Rawson Electrical Instrument Co., 111 Potter St., Cambridge 42, Mass.
 Ray-O-Vac Co., 212 E. Washington Ave., Madison, Wis.
 Raybestos-Manhattan, Inc., 61 Willett St., Passaic, N. J.
 Raymond Engineering Laboratory, Inc., Smith St., Middletown, Conn.
 Raymond Manufacturing Co., Corry, Pa.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
 Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass.
 Raytheon Mfg. Co., Equipment Marketing Dept., 100 River St., Waltham 54, Mass.
 Raytheon Mfg. Co., Microwave & Power Tube Operations, Waltham 54, Mass.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
 Raytheon Mfg. Co., Television & Radio Div., 5921 W. Dickens Ave., Chicago 39, Ill.
 Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif.
 Rea Magnet Wire Co., Inc., E. Pontiac St., Fort Wayne, Ind.
 Ready Power Co., The, Power Plant Div., 11231 Freud Ave., Detroit 14, Mich.
 Recora Co., Inc., 6100 S. Archer Rd., Summit, Ill.
 Recoton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.
 Rectico Inc., 963 Frelinghuysen Ave., Newark 5, N. J.
 Rectifier Engineering Co., Inc., 1803 E. Seventh St., Los Angeles 21, Calif.
 Red Bank Division, Bendix Aviation Corp., Eatontown, N. J.
 Red Point Corp., 1907 Riverside Drive, Glendale 1, Calif.
 Redman Electronics Corp., P. O. Box 72, Thompsonville, Conn.
 Redmond Co., Inc., Owosso, Mich.
 Reed-Curtis Nuclear Industries, Inc., 9459 N. Jefferson Blvd., Cliver City, Calif.
 Reeder & Co., Charles M., 173 Victor Ave., Detroit 3, Mich.
 Reeves Electronics, Inc., 609 W. Lake St., Chicago 6, Ill.
 Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.
 Reeves Instrument Corp., 227 E. 91st St., New York 28, N. Y.
 Reeves Soundcraft Corp., 10 E. 52nd St., New York 22, N. Y.
 Reflectone Corp., Post Rd. & Myano Lane, Stamford, Conn.
 Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
 Regulator Equipment Corp., 100 Pennsylvania Ave., Paterson 3, N. J.
 Reichhold Chemicals Inc., 525 N. Broadway, White Plains, N. Y.
 Reilly Tar and Chemical Corp., 1615 Merchants Bank Bldg., 11 S. Meridian St., Indianapolis, Ind.
 Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Rek-o-Kut Co., Inc., 38-01 Queens Blvd., Long Island City 1, N. Y.
 Relay Sales Inc., P. O. Box 186B, West Chicago, Ill.
 Relays, Inc., 162 W. 83rd St., New York 24, N. Y.
 Reliable Spring and Wire Forms Co., Fulton Rd. and Paris Ave., Cleveland 9, Ohio.
 Reliance Automatic Lighting Co., 1919 Mead St., Racine, Wis.
 Reliance Mica Co., Inc., 341 39th St., Brooklyn 32, N. Y.
 Rembar Co., Inc., The, 147 Main St., Dobbs Ferry, N. Y.
 Rem-Cru Titanium, Inc., Midland, Pa.
 Remington Rand Univac Div. of Sperry Rand Corp., Univac Park, St. Paul 16, Minn.
 Remier Company, 2101 Bryant St., San Francisco 10, Calif.
 Renbrandt, Inc., 98 Kirkland St., Cambridge 38, Mass.
 Reon Resistor Corp., 117 Stanley Ave., Yonkers, N. Y.
 Repath Pacific Div. of Arnold Engineering Co., 641 E. 61st St., Los Angeles 1, Calif.
 Republic Electronic Industries Corp., 31 W. 27th St., New York 1, N. Y.
 Republic Foil & Metal Mills, Inc., 55 Triangle St., Danbury, Conn.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Resdel Engineering Corp., 330 S. Fair Oaks Ave., Pasadena 1, Calif.
 Rese Engineering Corp., 731 Arch St., Philadelphia 6, Pa.
 Research Development Manufacture, Inc., 429 E. Collom St., Philadelphia 44, Pa.
 Research Electronics Laboratories, Roslyn, Pa.
 Research Mfg. Co., 2115 W. 17th St., Long Beach, Calif.
 Resin Industries, P. O. Box 1589, Santa Barbara, Calif.
 Resinite Corp. Sub. of Precision Paper Tube Co., 6981 N. Central Park Ave., Chicago 45, (Lincolnwood) Ill.
 Resistance Products Co., 914 S. 13th St., Harrisburg, Pa.
 Resistoflex Corp., Roseland, N. J.
 Resistors, Inc., 5226 W. 26th St., Chicago 50, Ill.
 Resistor Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 Revere Camera Co., 320 E. 21st St., Chicago 16, Ill.
 Revere Copper & Brass Inc., 230 Park Ave., New York 17, N. Y.

Revere Corporation of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.
 Rex Corp., The, Hayward Rd., West Acton, Mass.
 Rex Rheostat Co., 3 Foxhurst Rd., Baldwin, N. Y.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
 Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky.
 Rheem Electronics Division, 7777 Industry Ave., Rivera, Calif.
 Rhein Sound Systems, Inc., 133 Hamilton St., P. O. Box 1367, New Haven 5, Conn.
 Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif.
 Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.
 Rhodes Inc., M. H., 30 Bartholomew Ave., Hartford, Conn.
 Richards Co., Inc., Arklay S., 38 Winchester St., Newton Highlands 61, Mass.
 Richards Electrocraft, Inc., 3743 N. Kedzie Ave., Chicago 18, Ill.
 Richardson-Allen Corp., 116-15 15th Ave., College Point, N. Y.
 Richardson Company, The, 2767 Lake St., Melrose Park, Illinois.
 Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn.
 Richmond, Inc., 922 S. Myrtle Ave., Monrovia, Calif.
 Riestler & Thesmacher Co., 1510 W. 25th St., Cleveland 13, Ohio.
 Ripley Co., Inc., Middletown, Conn.
 Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.
 River Edge Sales Corp., 80 Shore Rd., Port Washington, N. Y.
 Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
 Robbins Aviation, 1735 W. Florence Ave., Los Angeles 47, Calif.
 Robbins & Myers, Inc., 1345 Lagonda Ave., Springfield 99, Ohio.
 Robco Mfg. Co., 225 W. Main St., Patchogue, N. Y.
 Robertshaw-Fulton Controls Co., Aeronautical Div., Santa Ana Freeway at Euclid Ave., Anaheim, Calif.
 Robinette, Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
 Robins Industries Corp., 214-26 41st Ave., Bayside, N. Y.
 Robinson Aviation, Inc., Teterboro Air Terminal, Teterboro, N. J.
 Robinson, Inc., Edward E., Machinery Div., 286 Peakness Ave., Paterson 2, N. J.
 Robotron Corp., 21320 W. Eight Mile Rd., Detroit 19, Mich.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
 Rockwell Engineering Co., 2125 E. 45th St., Indianapolis 5, Ind.
 Rode, Inc., 5 Green St., Woburn, Mass.
 Roebeling's Sons Corp., John A., 640 Broad St., Trenton 2, N. J.
 Roesch, Douglas, Div. of Hall-Scott, Inc., 2950 N. Ontario St., Burbank, Calif.
 Rolan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Rogan Bros., 8031 N. Monticello Ave., Skokie, Ill.
 Rogers Corporation, Goodyear, Conn.
 Rodden Manufacturing Co., Inc., 4739 Montrose Ave., Chicago 41, Ill.
 Rohn Mfg. Co., 116 Limestone, Bellevue, Peoria, Ill.
 Roia Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
 Rolan Electric Co., 8233 S. Princeton Ave., Chicago 20, Ill.
 Roller-Smith Corp., 1825 W. Market St., Bethlehem, Pa.
 Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
 Rome Cable Corp., Ridge St., Rome, N. Y.
 Rosan Inc., 2901 West Coast Highway, Newport Beach, Calif.
 Rosenau, Harris & Co., Ontario & "I" Sts., Philadelphia 34, Pa.
 Ross Metals Co., Milton, 505 Davisville Rd., Davisville, Pa.
 Rostan Corp., 5660 59th St., Maspeth 78, N. Y.
 Rotating Components, Inc., 269 Green St., Brooklyn 22, N. Y.
 Rotron Mfg. Co., Inc., 7-9 Schoonmaker Lane, Woodstock, N. Y.
 Rowe Engravers, 492 E. 39th St., Paterson 4, N. J.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Royal Electric Corp., Pawtucket, R. I.
 Royal Metal Mfg. Co., 175 N. Michigan Ave., Chicago 1, Ill.
 Rubber & Asbestos Corp., 225 Belleville Ave., Bloomfield, N. J.
 Rubicon Co., Ridge Ave., at 35th St., Philadelphia 29, Pa.
 Ruby Chemical Co., 68 McDowell St., Columbus 16, Ohio.
 Ruge Associates, Inc., Arthur, 733 Concord Ave., Cambridge, Mass.
 Rumble, Inc., 15026 Oxnard St., Van Nuys, Calif.
 Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
 Rush Wire Stripper Division, The Eraser Co., Inc., 1868 S. Clinton St., Syracuse 4, N. Y.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 Russell & Stoll Co., Inc., 125-6 Barclay St., New York 7, N. Y.
 Rust Industrial Co., Inc., 41 E. 42nd St., New York 17, N. Y.
 Rutherford Electronics Co., 8944 Lindblade St., Culver City, Calif.
 Rye Sound Corp., 21 Rye Rd., Rye, N. Y.
 Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.

- S. N. C. Mfg. Co., Inc., Box 277, Oshkosh, Wis.
 Safeway Heat Element Inc., 680 Newfield St., Middletown, Conn.
 Saft Corp. of America, 2 Gregg St., Lodi, N. J.
 Sag Harbor Industries, Inc., Bay St., Sag Harbor, N. Y.
 Sage-Craft, Inc., Norwich, N. Y.
 Sage Electronics Corp., 302 N. Goodman St., Rochester 7, N. Y.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
 St. John X-Ray Laboratory, Califon, N. J.
 St. Marys Carbon Company, State Rd., St. Marys, Pa.
 Samarius Electronic Corp., 123 Canal St., Shelton, Conn.
 Sanborn Co., 175 Wyman St., Waltham 54, Mass.
 Sanders Associates, Inc., Nashua, N. H.
 San Fernando Electric Mfg. Co., 1509 First St., San Fernando, Calif.
 Sanford Miller Co., 691 Bedford Ave., Brooklyn 6, N. Y.
 Sangamo Electric Co., 1201 N. 11th St., Springfield, Ill.
 Saratoga Scientific, P. O. Box 488, Saratoga, Calif.
 Sargeant & Wilbur Heat Treating Corp., 170 York Ave., Pawtucket, R. I.
 Sargent-Raymont Co., The, 4926-28 E. 12th St., Oakland 1, Calif.
 Sarkes Tarzian, Inc., Rectifier Div., 415 College Ave., Bloomington, Ind.
 Sarkes Tarzian, Inc., Tuner Div., East Hillside Drive, Bloomington, Ind.
 Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
 Scanlin Electronics, Inc., 11624 W. Pico Blvd., Los Angeles 64, Calif.
 Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.
 Schauer Mfg. Corp., 4521 Alpine Ave., Cincinnati 36, Ohio.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Schutter Co., Carl W., 80 E. Montauk Pkwy., Lindenhurst, N. Y.
 Schuyler Mfg. Corp., 84 Porete Ave., North Arlington, N. J.
 Schweitzer Inc., Peter J., 261 Madison Ave., New York 16, N. Y.
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 Scientific Associates, Inc., 2162 Piedmont Rd., N.E., Atlanta 9, Ga.
 Scientific-Atlanta, Inc., 2162 Piedmont Rd., N.E., Atlanta 9, Ga.
 Scientific Electric Corp., 105-119 Monroe St., Garfield, N. J.
 Scientific Electronic Labs., Inc., 866 Bergen St., Newark 8, N. J.
 Scientific Engineering Laboratories, 2229 McGee Ave., Berkeley, Calif.
 Scientific Instruments Div. Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
 Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
 Scientific Radio Products Co., Inc., 215 South 11th, Omaha, Neb.
 Scientific Radio Service, 4301 Sheridan St., University Park, Md.
 Scientific Wood Cabinet Co., 88 Holmes St., Belleville, N. J.
 Scintilla Division, Bendix Aviation Corp., Sidney, N. Y.
 Scott Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 Scruggs Co., Loyd, P. O. Drawer 232, Festus, Mo.
 Scully Machine Co., 62 Walter St., Bridgeport, Conn.
 Seaboard Coil Spring Division, 15001 S. Broadway, Gardena, Calif.
 Sealectro Corp., 610 Fayette Ave., Mamaroneck, N. Y.
 Sealot Corp., Warwick Industrial Park, Providence 5, R. I.
 Sealtron Corp., Reading Road at Amity, Cincinnati 15, Ohio.
 Seco Mfg. Co., 5015 Penn Ave., S., Minneapolis, Minn.
 Seeburg Metals Corp., 7 Intervale St., White Plains, N. Y.
 Seeburg, J. P., A Div. of Fort Pitt Industries, Inc., 1500 N. Dayton St., Chicago 22, Ill.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
 Segal, Edward, 72 Spring St., New York 12, N. Y.
 Sel-Rex Corp., Precious Metals Div., 75 River Rd., Nutley 10, N. J.
 Sel-Rex Corp., Rectifier Div., 155 Manchester Place, Newark 4, N. J.
 Semimetals, Inc., 130-11 90th Ave., Richmond Hill 18, N. Y.
 Sensitive Research Instrument Corp., 310 Main St., New Rochelle, N. Y.
 Sequoia Process Corp., 2201 Bay Rd., Redwood City, Calif.
 Serdex, Inc., 91 Cambridge St., Boston, Mass.
 Service Instruments Corp., 171 Official Rd., Addison, Ill.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Servo-Recording Instruments Inc., 1815 W. Van Buren, Phoenix, Ariz.
 Servo-Tek Products Co., 1086 Goffie Rd., Hawthorne, N. J.
 Servomechanisms, Inc., 12500 Aviation Blvd., Hawthorne, Calif.
 Servomechanisms, Inc., Mechatrol Div., 625 Main St., Westbury, N. Y.
 Servomex Controls Ltd., 80 Shore Rd., Port Washington, N. Y.
 Servonic Instruments, Inc., 1143 S. Fair Oaks Ave., Pasadena 2, Calif.
 Servonics, Inc., 822 N. Henry St., Alexandria, Va.
 Servospeed Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson, N. J.
 Servotrol Co., 114 W. Illinois St., Chicago 10, Ill.
 Sessions Clock Co., Industrial Products Div., Forestville, Conn.
 Set Screw & Mfg. Co., 470 Main St., Bartlett, Ill.
 Setchell Carlson, Inc., 330 Fifth Ave., New Brighton, Minn.
 Shakeproof, Div. of Illinois Tool Works, St. Charles Rd., Elgin, Ill.
 Shallcross Mfg. Co., 10 Jackson Ave., Collingdale, Pa.
 Shallite, Inc., 128 W. First Ave., Roselle, N. J.
 Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
 Shand and Jurs Co., Sub. of General Precision Equipment Corp., Carleton & Eighth Sts., Berkeley 10, Calif.
 Shasta Div. of Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif.
 Shaw Insulator Co., 160 Coit St., Irvington 11, N. J.
 Shearcut Tool Co., 7045 Darby Ave., Reseda, Calif.
 Shefro Mfg. Co., Grand & Ruby Aves., Palisades Park, N. Y.
 Sheffield Corp., The, Dayton 1, Ohio.
 Shell Chemical Corp., 380 Madison Ave., New York 17, N. Y.
 Sheltered Workshop, 2521 5th St., Santa Monica, Calif.
 Shepard Laboratories, 480 Morris Ave., Summit, N. J.
 Sherman Industrial Electronics Co., Inc., 505 Washington Ave., Belleville 9, N. J.
 Sherman Mfg. Co., H. B., 22 Barney St., Battle Creek, Mich.
 Sherrill Crystals, Inc., 1510 McGee St., Kansas City, Mo.
 Sherron Electronics Co., 1201 Flushing Ave., Brooklyn 6, N. Y.
 Shielding, Inc., Dept. 1B, Riverton, N. J.
 Shure Brothers, Inc., 246 Hartrey Ave., Evanston, Ill.
 Shurite Meters, 35-B Hamilton St., New Haven 8, Conn.
 Sibley Co., The, Haddam, Conn.
 Sickles, F. W., Div. General Instrument Corp., 165 Front St., Chicopee, Mass.
 Sierra Electric Corp., 15100 S. Figueroa St., P. O. Box 85, Gardena, Calif.
 Sierra Electronic Corp., 3885 Bohannon Drive, Menlo Park, Calif.
 Sierra Engineering Co., 123 E. Montecito Ave., Sierra Madre, Calif.
 Sieler Design Products, 10460 San Pablo Ave., El Cerrito, Calif.
 Sightmaster Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 Sigma Instruments, Inc., 180 Pearl St., South Braintree 85, Mass.
 Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash.
 Signal Transformer Co., 902 Coney Island Ave., Brooklyn 18, N. Y.
 Signalite Inc., 37-41 Neptune Highway, Neptune, N. J.
 Silicone Insulation, Inc., 1385 Seabury Ave., Bronx 61, N. Y.
 Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill.
 Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Sillocks-Miller Co., Maplewood, N. J.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.
 Simmons Fastener Corp., 1752 N. Broadway, Albany 1, N. Y.
 Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.
 Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
 Sims Casting Co., 2174 E. Erie Blvd., Syracuse 3, N. Y.
 Sinclair Mfg. Co., Chartley, Mass.
 Sioux Radio Products, 100 Douglas Ave., Yankton, S. D.
 Sittler Corp., 18 N. Ada St., Chicago 7, Ill.
 Skinner Electric Valve Div., The Skinner Chuck Co., Edgewood Ave., New Britain, Conn.
 Skottite Electronics, Inc., 204 Bridge St., Peckville, Pa.
 Skydine, Inc., River Rd., Port Jervis, N. Y.
 Skysweeper Inc., McHenry, Ill.
 Slaughter Company, Piqua 9, Ohio.
 Sleplan & Co., Arthur, 2 Burroughs St., Bridgeport 7, Conn.
 Slip Ring Co. of America, 3612-3622 W. Jefferson Blvd., Los Angeles 21, Calif.
 Small Motors, Inc., 2076 Elston Ave., Chicago 14, Ill.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Smith Mfg. Co., J. & H., Little Britain Rd., Newburgh, N. Y.
 Smooth-On Mfg. Co., 572 Communipaw Ave., Jersey City 4, N. J.
 Societe Anonyme de Machines Electrostatiques, B. P. 150, Grenoble, France.
 Sola Electric Co., 4633 W. 16th St., Chicago 50, Ill.
 Solar Mfg. Corp., E. 46th & Seville Ave., Los Angeles 58, Calif.
 Solartron, Inc., Western Div., 10761 Burbank Blvd., North Hollywood, Calif.
 Soldering Specialties Co., 19 Chatham Rd., Summit, N. J.
 Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.
 Sonar Radio Corp., 3050 W. 21st St., Brooklyn 24, N. Y.
 Sonex, Inc., 73 S. State Rd., Upper Darby, Pa.
 Sonic Recording Products, Inc., 58 Mill Rd., Freeport, N. Y.
 Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
 Sonotone Corp., Saw Mill River Road, P. O. Box 200, Elmsford, N. Y.
 Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
 Sorensen & Co., Inc., Richards Ave., Norwalk, Conn.
 Sorensen Industrial Electronic So., Route 16, Dover, N. J.
 Sorgel Electric Co., 838 W. National Ave., Milwaukee 4, Wis.
 Sound Apparatus Co., Stirling, N. J.
 SoundScriber Corp., Middletown Ave., North Haven, Conn.
 South River Metal Products Co., Inc., 377-379 Turnpike, South River, N. J.
 Southco Division, South Chester Corp., 233 Industrial Highway, Lester, Pa.
 Southern Electronics Corp., 150 W. Cypress Ave., Burbank, Calif.
 Southern Screw Co., P. O. Box 1360-EG, Statesville, N. C.
 Southwestern Industrial Electronics Co., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas.
 Sparta Mfg. Co., Div. of U. S. Ceramic Tile Co., Dover, Ohio.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Specialties, Inc., Skunks Misery Rd., Syosset, N. Y.
 Specialty Automatic Machine Corp., 100 Gerrish Ave., Chelsea, Mass.
 Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
 Specific Products, 14515 Dickens St., Sherman Oaks 13, Calif.
 Spectrol Div. of Carrier Corp., 1704 S. Del Mar, San Gabriel, Calif.
 Spectrum Instruments, Inc., 44-05 30th Ave., Long Island City 3, N. Y.
 Speedway Mfg. Co., 1834 S. 52nd Ave., Cicero 50, Ill.
 Speer Resistor Division, Speer Carbon Co., St. Marys, Pa.
 Spellman Television Co., Inc., 3029 Webster Ave., New York 67, N. Y.
 Spencer-Kennedy Labs., Inc., 1318 Soldiers Field Rd., Boston 35, Mass.
 Spencer Mfg. Co., 3253 N. Cicero Ave., Chicago 41, Ill.
 Spencer Thermostat Div., Metals & Controls Corp., 31 Forest St., Attleboro, Mass.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Great Neck, N. Y.
 Sphere Co., Inc., The, 25 Amity St., Little Falls, N. J.
 Spinco Div. of Beckman Instruments, Inc., Stanford Industrial Park, Palo Alto, Calif.
 Spivey Inc., James S., 4908 Hampden Lane, Washington 4, D. C.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 Sprague of Wisconsin, Inc., Sixth & Beech St., Grafton, Wis.
 Springer Aircraft Radio Co., Earl W., Route 11, Box 330, Sky Harbor Airport, Indianapolis, Ind.
 Spruce Pine Mica Co., Spruce Pine, N. C.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Stackbin Corp., 1255 Main St., Pawtucket, R. I.
 Stackpole Carbon Co., St. Marys, Pa.
 Stacor Equipment Co., 732 E. New York Ave., Brooklyn 5, N. Y.
 Staedtler Inc., J. S., 25 Dicarolls Court, Hackensack, N. J.
 Stahlin Brothers, Inc., 103 Maple St., Belding, Mich.
 Stainless, Inc., Third St., North Wales, Pa.
 Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
 Standard Cabinet Co., 57 Washington Ave., Carlstadt, N. J.
 Standard Coil Products Co., 2085 N. Hawthorne St., Melrose Park, Ill.
 Standard Condenser Co., 3749 N. Clark St., Chicago 13, Ill.
 Standard Crystal Co., 1714 Locust St., Kansas City 8, Mo.
 Standard Electric Time Co., The, 97 Logan St., Springfield, Mass.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Standard Felt Co., 29 S. Palm Ave., Alhambra, Calif.
 Standard Instrument Corp., 657 Broadway, New York 12, N. Y.
 Standard Locknut & Lockwasher Inc., 2250 Valley Ave., Indianapolis 18, Ind.
 Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
 Standard Plastics Co., Inc., 62 Water St., Attleboro, Mass.
 Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.
 Standard Record Mfg. Co., 70 N. San Gabriel Blvd., Pasadena, Calif.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.
 Standard Tool & Mfg. Co., Arlington, N. J.
 Standard Winding Corp., 44-62 Johns St., Newburgh, N. Y.
 Stanley-Judd Div. of Stanley Works, Wallingford, Conn.
 Stanley Pressed Metal Div. of The Stanley Works, New Britain, Conn.
 Stanley Tools, New Britain, Conn.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
 Stanpat, 150-42 12th Rd., Whitestone 57, N. Y.
 Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.
 Star Expansion Products Co., 142 Liberty St., New York 6, N. Y.
 Star Porcelain Co., 61 Muirhead Ave., Trenton 9, N. J.
 Star Stainless Screw Co., 655 Union Blvd., Totowa, N. J.
 State Labs., Inc., 649 Broadway, New York 12, N. Y.
 States Co., 19 New Park Ave., Hartford 6, Conn.
 Statham Laboratories, Inc., 12401 W. Olympic Blvd., Los Angeles 64, Calif.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Staver Co., Inc., The, 43 N. Saxon Ave., Bay Shore, N. Y.

Steel Co., Herman D., Lafayette Bldg., Philadelphia 6, Pa.
 Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia 32, Pa.
 Steel Protection & Chemical Co., Inc., Mooresville, Ind.
 Steger Furniture Mfg. Co., Steger, Ill.
 Steinen Mfg. Co., Wm., 43 Bruen St., Newark 5, N. J.
 Steiner-Ives Co., Springfield Rd., Union, N. J.
 Stelma, Inc., 190 Henry St., Stamford, Conn.
 Stephens Tru-Sonic Inc., 8538 Warner Drive, Culver City, Calif.
 Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
 Sterling Mfg. Co., 7201 Wentworth, Cleveland, Ohio.
 Sterling Precision Corp., Instrument Div., 34-17 Lawrence St., Flushing 54, N. Y.
 Sterling Transformer Corp., 297 N. Seventh St., Brooklyn 11, N. Y.
 Stevens-Arnold Inc., 22 Elkins St., South Boston 27, Mass.
 Stevens Mfg. Co. Inc., P. O. Annex 1007, Mansfield, Ohio.
 Stevens Mfg. Co., Inc., Geo., 6022 N. Rogers Ave., Pulaski & Peterson, Chicago 30, Ill.
 Stevens Paper Mills, Inc., Windsor, Conn.
 Stevens Products Inc., 86-88 Main St., East Orange, N. J.
 Stevens-Walden, Inc., 475 Shrewsbury St., Worcester 4, Mass.
 Stevenson, Bro. & Co., 110 Race St., Philadelphia 6, Pa.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
 Stewart Corp., F. W., 4311 Ravenswood Ave., Chicago 13, Ill.
 Stewart Engineering Co., Box 277, Soquel, Calif.
 Stewart Stamping Co., 630 Central Park Ave., Yonkers 4, N. Y.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 Sticht Co., Inc., Herman H., 27 Park Place, New York 7, N. Y.
 Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brooklyn 5, N. Y.
 Stoddard Aircraft Radio Co., 6644 Santa Monica Blvd., Hollywood 38, Calif.
 Stokes Co., F. J., 5500 Tabor Road, Philadelphia 20, Pa.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 Stone Paper Tube Co., Inc., 900 Franklin St., N. E., Washington 17, D. C.
 Stow Manufacturing Co., 101 Shear St., Binghamton, N. Y.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
 Streeter-Amet Co., Grayslake, Ill.
 Strickland Engineering Co., Inc., 177 Austin St., Newtonville, Mass.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Struthers-Dunn, Inc., Lamb's Road, Pitman, N. J.
 Stueck, Inc., W. Whitney, Dept. E, Old Saybrook, Conn.
 Sturupp, Inc., 50 Silver St., Middletown, Conn.
 Stupakoff, Div. of The Carborundum Co., Latrobe, Pa.
 Sturtevant Co., P. A., Addison, Ill.
 Suffolk Products Corp., Woodbine & Scudder, Northport, N. Y.
 Sullivan Ltd., H. W., 80 Shore Rd., Port Washington, N. Y.
 Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.
 Summit Coll. Co., 4 Claremont Rd., Bernardsville, N. J.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Sun Dial Corp., E. Passaic Ave., Caldwell, N. J.
 Sun Tube Corp., Washington, N. J.
 Sunshine Scientific Instrument, 1810 Grant Ave., Philadelphia 15, Pa.
 Suprex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
 Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
 Superior Electric Co., The, 5000 Bradley Ave., Bristol, Conn.
 Superior Electronics Corp., 208 Plaget Ave., Clifton, N. J.
 Superior Flux & Mfg. Co., 1302 Ontario St., Cleveland 13, Ohio.
 Superior Graphite Co., 33 S. Clark St., Chicago 3, Ill.
 Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
 Superior Insulated Wire Co., Route 9W, West Haverstraw, N. Y.
 Superior Seatlite & Ceramic Corp., 83-91 W. Forest Ave., Englewood, N. J.
 Superior Tube Co., 2504 Germantown Pike, Norristown, Pa.
 Supreme Industrial Products Co., 367 N. Karlov Ave., Chicago 24, Ill.
 Supreme Process Corp., 44 Bond St., Westbury, N. Y.
 Suprenant Manufacturing Co., Clinton, Mass.
 Sutter Electronics Co., P. O. Box 896, Palo Alto, Calif.
 Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
 Swift & Sons, M., 10 Love Lane, Hartford 1, Conn.
 Swiss Jewel Co., Lafayette Bldg., Philadelphia 6, Pa.
 Switchcraft, Inc., 1320 N. Halsted St., Chicago 22, Ill.
 Sylvania Electric Products Inc., Argus Cameras Div., 405 Fourth St., Ann Arbor, Mich.
 Sylvania Electric Products Inc., Electronic Systems Div., 100 First Ave., Waltham, Mass.
 Sylvania Electric Products Inc., Executive Offices, 1740 Broadway, New York 19, N. Y.
 Sylvania Electric Products Inc., Lighting Div., 60 Boston St., Salem, Mass.
 Sylvania Electric Products Inc., Parts Div., 12 Second Ave., Warren, Pa.
 Sylvania Electric Products Inc., Radio & Television Set Div., 700 Elliott St., Batavia, N. Y.
 Sylvania Electric Products Inc., Radio Tube Div., Emporium, Pa.

Sylvania Electric Products Inc., Semiconductor Div., 100 Sylvan Rd., Woburn, Mass.
 Sylvania Electric Products Inc., Special Tube Operations, 100 Sylvan Rd., Woburn, Mass.
 Sylvania Electric Products Inc., Television Picture Tube Div., Seneca Falls, N. Y.
 Sylvania Electric Products Inc., Tungsten & Chemical Div., Towanda, Pa.
 Symphony Electronics Corp., 925 South Western Ave., Los Angeles 6, Calif.
 Synchro Start Products, Inc., 8151 N. Ridgway Ave., Skokie, Ill.
 Syncor Products Co., 30 Eastern Ave., Malden, Mass.
 Synthane Corp., Oaks, Pa.
 Syntorque, Inc., 601 W. 26th St., New York 1, N. Y.
 Syntro Corp., 243 Lexington, Homer City, Pa.
 Syntronic Instruments, Inc., 100 Industrial Road, Addison, Ill.

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TA Mfg. Corp., 4613 Alger St., Los Angeles 39, Calif.
 TKM Electric Corp., 1160 University Ave., Rochester 7, N. Y.
 Tablet & Ticket Co., 1021 W. Adams St., Chicago 7, Ill.
 Taffet Radio & Television Co., 2705 Brooklyn-Queens Expressway, W., Woodside 77, N. Y.
 Taft-Peirce Mfg. Co., The, Woodssocket, R. I.
 Takk Corp., The, Box 346, Newark, Ohio.
 Talk-A-Phone Co., 1512 S. Pulaski Rd., Chicago 23, Ill.
 Talk-O-Products, Inc., 163 St. Paul St., Rochester 6, N. Y.
 Tally & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
 Tally Register Co., 5300 W. 14th, N. W., Seattle, Wash.
 Ta-Mar, Inc., 11571 W. Jefferson Blvd., Culver City, Calif.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
 Taylor Fibre Co., Norristown, Pa.
 Taylor Instrument Companies, 95 Ames St., Rochester, N. Y.
 Taylor Tubes, Inc., 6 N. Michigan Ave., Chicago 12, Ill.
 Taylor-Winfield Corp., 1056 Mahonig, N.W., Warren, Ohio.
 Teca Corp., 80 Main St., White Plains, N. Y.
 Tech Laboratories, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.
 Techalloy Co., Inc., Box 34, Rahns, Pa.
 Technic, Inc., P. O. Box 965, Providence 1, R. I.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
 Technical Appliance Corp., Sherburne, N. Y.
 Technical Associates, 140 W. Providencia Ave., Burbank, Calif.
 Technical Devices Co., 2346 Centinela Ave., Los Angeles 64, Calif.
 Technical Electronics Corp., 4060 Ince Blvd., Culver City, Calif.
 Technical Materiel Corp., The, P. O. Box 142, Mamaronck, N. Y.
 Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.
 Technical Operations, Inc., 6 Schouler Court, Arlington 74, Mass.
 Technical Products Co., Instrument Div., 6670 Lexington Ave., Los Angeles 38, Calif.
 Technical Service Corp., 1404 W. Market St., Louisville 5, Ky.
 Technicraft Co., 1156 Commonwealth Ave., Boston 34, Mass.
 Technicraft Laboratories, Inc., Thomaston-Waterbury Rd., Thomaston, Conn.
 Techniques, Inc., 52 Jackson Ave., Hackensack, N. J.
 Technitrol Engineering Co., 1952 E. Allegheny Ave., Philadelphia 34, Pa.
 Technograph Printed Electronics Inc., 185 Valley St., Tarrytown, N. Y.
 Technology Instrument Corp., 533 Main St., Acton, Mass.
 Techron Corp., 81 Washington St., Boston 8, Mass.
 Teiner Co., Inc., Roland, 134 Tremont St., Everett 49, Mass.
 Teiner Engineering Corp., 116 Madison St., Malden, Mass.
 Tektronix, Inc., P. O. Box 831, Portland 7, Ore.
 Tel-Autograph Corp., 8700 Bellanca Ave., Los Angeles 45, Calif.
 Tele-Coil Co., Inc., 2733 Saunders St., Camden 5, N. J.
 Telechrome Mfg. Corp., 28 Ranick Drive, Amityville, N. Y.
 Telecom, Inc., 1019 Admiral Blvd., Kansas City, Mo.
 Telecomputing Div. of Telecomputing Corp., 12838 Saticoy St., North Hollywood, Calif.
 Telefoto Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Teletron Co., The, Bldg. #9, Broward County International Airport, Fort Lauderdale, Fla.
 Tele Dynamics Inc., 32nd & Walnut Sts., Philadelphia, Pa.
 Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London, W. 3, England.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Telemetering Associates, 6419 Indigo St., Houston, Texas.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Telequip Radio Co., 2559 W. 21st St., Chicago 8, Ill.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Teleregister Corp., The, 445 Fairfield Ave., Stamford, Conn.
 TeleTest Instrument Corp., 136-10 31st Rd., Flushing 54, N. Y.
 Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.
 Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.
 Television Accessories Co., Box 368, Scottsdale, Ariz.
 Television Utilities Corp., 112-23 Colonial Ave., Corona, N. Y.

Television Zoomar Corp., 500 Fifth Avenue, New York, N. Y.
 Televiso Corp., 1415 Golf Rd., Des Plaines, Ill.
 Televox Mfg. Co., 1307 Sansom St., Philadelphia 7, Pa.
 Telewave Laboratories, Inc., 43-20 34th St., Long Island City, N. Y.
 Telex Inc., Telex Park, St. Paul 1, Minn.
 Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
 Tel-Labs, Inc., 1050 Second St., Manchester, N. H.
 Telonic Industries, 73 N. 2nd Ave., Beech Grove, Ind.
 Telrex, Inc., Asbury Park, N. J.
 Telvision Laboratories, Inc., Mill St., Wauconda, Ill.
 Tempel Mfg. Co., 1939 Bryn Mawr Ave., Chicago 26, Ill.
 Tempil Corp., 132 W. 22nd St., New York 11, N. Y.
 Tempo Instrument Co., 5 Centre St., Hempstead, N. Y.
 Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.
 Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio.
 Tennialab, Quincy, Ill.
 Tenney Engineering Inc., 1090 Springfield Rd., Union, N. J.
 Tensitron, Inc., Harvard, Mass.
 Tensolite Insulated Wire Co., Inc., 190 Main St., Tarrytown, N. Y.
 Tensolite Specialties, Inc., 198 Main St., Tarrytown, N. Y.
 Tensor Electric Development Co., Centroid Div., 1873 Eastern Parkway, Brooklyn 33, N. Y.
 Tepro Electric Corp., 421 Burke Bldg., 5 St. Paul St., Rochester 4, N. Y.
 Terado Co., 1059 Raymond Ave., St. Paul 14, Minn.
 Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
 Terrell Corp., 19 Lane St., Waltham 54, Mass.
 Tesla Electric Co., 2871 N. Lincoln Ave., Chicago 13, Ill.
 Tetrad Co., Inc., 62 St. Mary St., Yonkers 2, N. Y.
 Tevco Insulated Wire, 108 Prospect Ave., Burbank, Calif.
 Texas Capacitor Co., Div. of K-C-K Corp., 922 S. 75th St., Houston, Texas.
 Texas Division, Brush Electronics Co., 3732 Westheimer Rd., Houston 6, Texas
 Texas Instruments Inc., 6000 Lemmon Ave., Dallas 9, Texas.
 Texloid Products Co., 81 Rumford Ave., Waltham, Mass.
 Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill.
 Thermodar Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
 Thermal American Fused Quartz Co., Inc., 18-20 Salem St., Dover, N. J.
 Thermal-Devices Div. of Curtiss-Wright Corp., 631 Central Ave., Carlstadt, N. J.
 Thermic Materials, Inc., 4040 Campbell Ave., Menlo Park, Calif.
 Thermonics, Inc., 361 W. Main St., Stamford, Conn.
 Theta Instrument Corp., 204 Market St., East Paterson, N. J.
 Thiokol Chemical Corp., 780 N. Clinton Ave., Trenton 7, N. J.
 Thomas & Betts Co., 36 Butler St., Elizabeth 1, N. J.
 Thomas Electronics, Inc., 118 Ninth St., Passaic, N. J.
 Thomas Instrument Co., Three Rivers, Phoenix, N. Y.
 Thomas Mold & Die Co., Wooster, Ohio.
 Thomas & Skinner, Inc., 1122 E. 23rd St., Indianapolis 5, Ind.
 Thomas & Sons, Inc., William, Slocum Ave., Ridgefield, N. J.
 Thompson-Bremer & Co., 520 N. Dearborn, Chicago 10, Ill.
 Thompson Fiberglass Co., H. I., 1733 Cordova St., Los Angeles 7, Calif.
 Thompson Products, Inc., Electronics Div., 2196 Clarkwood Rd., Cleveland 3, Ohio.
 Thor Ceramics, Inc., 225 Belleville Ave., Bloomfield, N. J.
 Thor Transformer & Electronics Co., 750 San Antonio Rd., Palo Alto, Calif.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Thwing-Albert Instrument Co., 5351 Pulaski Avenue, Philadelphia 44, Pa.
 Tibbetts Industries, Inc., Camden, Maine.
 Times Facsimile Corp., 540 W. 58th St., New York 19, N. Y.
 Times Wire & Cable Co., Wallingford, Conn.
 Timken Roller Bearing Co., Canton 6, Ohio.
 Tingstol Co., 1461 W. Grand Ave., Chicago 22, Ill.
 Tinnerman Products, Inc., P. O. Box 6689, Dept. No. 16, Cleveland 1, Ohio.
 Titan Metal Mfg. Co., Bellefont, Pa.
 Titchener & Co., E. H., 67 Clinton St., Binghamton, N. Y.
 Titeflex, Inc., Hendee St., Springfield 4, Mass.
 Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.
 Todd Products Co., Inc., 156 Gramatan Ave., Mt. Vernon, N. Y.
 Todd-Tran Corp., 156 Gramatan Ave., Mt. Vernon, N. Y.
 Topatron, Inc., 942 E. Ojai Ave., Ojai, Calif.
 Toplight Corp., 160 E. Ninth Ave., York, Pa.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Torit Mfg. Co., Walnut & Exchange Sts., St. Paul 2, Minn.
 Tork Time Controls Inc., 32 Grove St., Mt. Vernon, N. Y.
 Torngren Co., Inc., C. W. 236 Pearl St., Somerville 45, Mass.
 Torocoll Co., 2615 Bristol Rd., Columbus 21, Ohio.
 Torotel, Inc., 11505 Belmont Ave., Hickman Mills, Mo.
 Torrance Glass & Color Works, Torrance, Calif.
 Torrington Co., 59 Field St., Torrington, Conn.
 Torwico Electronics, Inc., 1090 Morris Ave., Union, N. J.
 Towaco Electronics, Pine Brook Rd., Towaco, N. J.
 Tower Construction Co., 2700 Hawkeye Drive, Sioux City, Iowa.
 Tracerlab, Inc., 1601 Trapelo Rd., Waltham 54, Mass.
 Trad Electronics Corp., 1001 First Ave., Asbury Park, N. J.

Trans-Aire Electronics, Inc., 195-02 Jamaica Ave., Hollis 23, N. Y.
 Trans Electronics Inc., 7349 Canoga Ave., Canoga Park, Calif.
 Transco Products, Inc., 12210 Nebraska Ave., Los Angeles 25, Calif.
 Transformer Engineers, 161 E. California St., Pasadena 1, Calif.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Transformer Specialty Co., Inc., Bala Cynwyd, Pa.
 Transformers, Inc., 200 Stage Rd., Vestal, N. Y.
 Transcoil Corp., Worcester, Penna.
 Transistor Components Co., 301 Oakwood Ave., East Aurora, N. Y.
 Transistor Devices, Inc., 730 Boulevard, Kenilworth, N. J.
 Transiron Electronic Corp., 168 Albion St., Wakefield, Mass.
 Transiron, Inc., 186 Granite St., Manchester, N. H.
 Transline Associates, 95 Summit St., Newark 3, N. J.
 Transonic, Inc., 808 Sixteenth St., Box 59, Bakersfield, Calif.
 Transradio Ltd., 138A Cromwell Rd., London SW 7, England.
 Trans-Sonics, Inc., P. O. Box 328, Lexington 73, Mass.
 Trent Tube Co., East Troy, Wis.
 Trenton Transformer Corp., Box 568B, Trenton, N. J.
 Tresco, Inc., 3824 Terrace St., Philadelphia 28, Pa.
 Triad Transformer Corp., Sub. of Litton Industries, 4055 Redwood Ave., Venice, Calif.
 Trico Fuse Mfg. Co., 2948 N. Fifth, Milwaukee 12, Wis.
 Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
 Tricraft Products Corp., 1124 W. Newport Ave., Chicago 13, Ill.
 Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
 Trimm Inc., 400 W. Lake St., Libertyville, Ill.
 Trimm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.
 Trimount Instrument Co., 3119 W. Lake St., Chicago 12, Ill.
 Trio Laboratories, Inc., 4025 Merrick Rd., Seaford, N. Y.
 Trio Mfg. Co., Griggsville, Ill.
 Trilon, Inc., 1000 Island Ave., McKees Rocks, Pa.
 Tripl-T Co., Electronics Box 5352, Pasadena, Calif.
 Triplett & Barton, Inc., 831 N. Lake St., P. O. Box 3128, Burbank, Calif.
 Triplett Electrical Instrument Co., Harmon Road, Bluffton, Ohio.
 Tri-Point Plastics, Inc., 177 I. U. Willets Rd., Albertson, N. Y.
 Tronic Coil Winding Co., Inc., 58 Wesley St., Waterbury, Conn.
 Trop-Arctic, Inc., P. O. Box 334, Mishawaka, Ind.
 Tru-Connector Corp., 416 Union St., Lynn, Mass.
 Tru-Ohm Products Div., Model Engineering & Mfg. Co., 2800 Milwaukee Ave., Chicago 18, Ill.
 Trumbull Components Dept., General Electric Co., 41 Woodford Ave., Plainville, Conn.
 Truscon Steel Division of Republic Steel Corp., Youngstown, Ohio.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 Tubular Rivet & Stud Co., Weston Ave., Wollaston (Quincy) 70, Mass.
 Tung-Sol Electric Inc., 95 Eighth Ave., Newark 4, N. J.
 Turn-Bo Jet Products, Inc., 424 S. San Gabriel Blvd., San Gabriel, Calif.
 Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
 Twentieth Century Electronics, Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.

U

UBS Chemical Corp., 491 Main St., Cambridge 42, Mass.
 U M & F Manufacturing Corp., 10929 Vanowen St., North Hollywood, Calif.
 Ucinite Co., Division, United-Carr Fastener Corp., 459 Watertown St., Newtonville, Mass.
 Ulanet Co., George, 413 Market St., Newark 5, N. J.
 Ultradyne Engineering Labs., Inc., P. O. Box 8007, Albuquerque, N. M.
 Ultrasonic Engineering Co., 2402 Second St., Peru, Ill.
 Underwood Electric & Mfg. Co., Inc., 4926 W. Grand Ave., Chicago 39, Ill.
 Ungar Electric Tools, Inc., 4101 Redwood Ave., Los Angeles 66, Calif.
 Uniform Tubes, Level Rd., Collegeville 2, Pa.
 Unimax Switch Div., The W. L. Maxson Corp., Ives Rd., Wallingford, Conn.
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
 Union Electronics & Machine Corp., Moulton & Munroe Sts., Georgetown, Mass.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.
 Unit Process Assemblies, Inc., 61 E. 4th St., New York 3, N. Y.
 United Aircraft Products, Inc., 1116 Bolander Ave., Dayton 1, Ohio.
 United Cable Corp., Div. of Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 United Carbon Products Co., Inc., P. O. Box 269, Bay City, Mich.
 United-Carr Fastener Corp., Cambridge 42, Mass.
 United Condenser Corp., 3400 Park Ave., New York 56, N. Y.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
 United Electronic Controls Co., 85 School St., Watertown 72, Mass.

United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.
 United Electronic Mfg. Corp., 542 39th St., Union City, N. J.
 United Electronics Co., 42 Spring St., Newark 2, N. J.
 United Manufacturing & Service Co., 405 S. Sixth St., Milwaukee 4, Wis.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 United Pressed Products Co., 741 W. Harrison St., Chicago 7, Ill.
 United Screw & Bolt Corp., 2514 W. Fullerton St., Chicago 8, Ill.
 United Shoe Machinery Corp., 140 Federal St., Boston 7, Mass.
 U. S. Components, Inc., 454 E. 148th St., New York 55, N. Y.
 United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
 U. S. Electronics Corp., 276 Warren St., Lyndhurst, N. J.
 U. S. Electronics Corp. of America, 800 Slater Lane, Alexandria, Va.
 U. S. Electronics Development Corp., 1323 Alrway, Glendale 1, Calif.
 U. S. Engineering Co., Div. of Litton Industries, 5873 Rodeo Rd., Los Angeles 18, Calif.
 U. S. Gasket Co., Camden, N. J.
 U. S. Gauge Div., American Machine & Metals, Inc., Sellersville, Pa.
 U. S. Gear Corp., 71 Broadway, Wakefield, Mass.
 U. S. Graphite Co., Div. of The Wickes Corp., Saginaw 32, Mich.
 U. S. Plastic Rope Co., 2581 Spring St., Redwood City 10, Calif.
 U. S. Plywood Corp., Electrical Structures Dept., 55 W. 44th St., New York 17, N. Y.
 U. S. Radium Corp., Hanover & Horse Hill Rd., Morristown, N. J.
 U. S. Relay Co., 1740 Albion St., Los Angeles 31, Calif.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 U. S. Steel Corp., 525 William Penn Place, Pittsburgh 30, Pa.
 U. S. Stoneware Co., The Akron 9, Ohio.
 U. S. Time Corp., 346 Tejon Place, Palos Verdes Est., Calif.
 United Technical Laboratories, Box 425-V, Morristown, N. J.
 United Transformer Corp., 150 Varick St., New York 13, N. Y.
 United Wire & Supply Corp., Providence 7, R. I.
 Unitrronics, Inc., 472 Park Ave., Ferguson Station, St. Louis 21, Mo.
 Universal Atomics, A Div. of Universal Transistor Products Corp., 143 E. 49th St., New York 17, N. Y.
 Universal Aviation Corp., Div. of Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 Universal Circuit Controls Corp., 3610 Oakton St., Skokie, Ill.
 Universal Condenser Co., 3435 N. Kimball Ave., Chicago 18, Ill.
 Universal Drafting Machine Corp., 7960 Lorain Ave., Cleveland 2, Ohio.
 Universal Electric Co., 300 E. Main St., Owosso, Mich.
 Universal Electronics Co., 1720 Twenty-Second St., Santa Monica, Calif.
 Universal Mfg. Co., Inc., 410 Hillside Ave., Hillside, N. J.
 Universal Microphone Co., Box 55, Inglewood, Calif.
 Universal Winding Co., P. O. Box 1605, Providence 1, R. I.
 University Loudspeakers, Inc., 80 S. Kensico Ave., White Plains, N. Y.
 Univox, 102 Warren St., New York 7, N. Y.
 Uniwave, Inc., 2 Marine St., P. O. Box 474, Farmingdale, N. Y.
 Utica Drop Forge & Tool Div. of Kelsey-Hayes Co., 2415 Whitesboro St., Utica 4, N. Y.
 Utility Brass & Copper Corp., 255 Conover St., Brooklyn 31, N. Y.
 Utrad, Inc., 305 N. Briant, Huntington, Ind.

V

V-M Corp., Benton Harbor, Mich.
 Vacap Corp., 1905 Summit Ave., Union City, N. J.
 Vaco Products Co., 317 E. Ontario St., Chicago 11, Ill.
 Vacuum Equipment Div. of The New York Air Brake Co., 1325 Admiral Wilson Blvd., Camden, N. J.
 Vacuum Metals Corp., Div. of Crucible Steel Co. of America, P. O. Box 977, Syracuse 1, N. Y.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 Valco Mfg. Co., 4700 W. Walton St., Chicago 51, Ill.
 Valley Engineering Co., P. O. Box 2, Los Alamos, N. M.
 Valor Electronic Components Co., 5808 Marilyn Ave., Culver City, Calif.
 Valpey Crystal Corp., 1244 Highland St., Holliston, Mass.
 Van Keuren Co., 176 Waltham St., Watertown, Mass.
 Vandercook & Sons, Inc., 3601 W. Touhy Ave., Chicago 45, Ill.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 Varflex Corp., 506 W. Court St., Rome, N. Y.
 Varian Associates, 611 Hansen Way, Palo Alto, Calif.
 Vari-L Co., Inc., P. O. Box 1433, Stamford, Conn.
 Varo Mfg. Co., Inc., 2201 Walnut St., Garland, Texas.
 Vector Electronic Co., 3352 San Fernando Rd., Los Angeles 65, Calif.
 Vector Manufacturing Co., 5616 Lawndale Ave., Houston 23, Texas.
 Vectrol Engineering Inc., P. O. Box 1089, Stamford Conn.
 Vectron, Inc., 1609 Trapelo Rd., Waltham 54, Mass.

Veeco Vacuum Corp., 86 Denton Ave., New Hyde Park, N. Y.
 Veeder-Root, Inc., Hartford 2, Conn.
 Vega Electronics Corp., 1921 Pontius Ave., Los Angeles 25, Calif.
 Vemaline Products Co., P. O. Box 222, Hawthorne, N. J.
 Vesto Co., Inc., 20th & Clay, North Kansas City, Mo.
 Vibration Research Labs., Inc., 97 Lake Ave., Tuckahoe, N. Y.
 Vibrex Fastener Corp., Mount Kisco, N. Y.
 Vibrox Corp., Inc., 833 Broadway, New York, N. Y.
 Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
 Victor Adding Machine Co., Electronics Sales Div., 3900 N. Rockwell St., Chicago 18, Ill.
 Victor Electric Wire & Cable Corp., 618 Main St., West Warwick, R. I.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Victoreen Instrument Co., Components Div., 5806 Hough Ave., Cleveland 3, Ohio.
 Victory Engineering Corp., 101 Springfield Rd., Union, N. J.
 Vidair Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.
 Video Industries Co., 242 Madison Ave., Port Chester, N. Y.
 Videon Electronic Corp., 902 E. Michigan St., Indianapolis 2, Ind.
 Viking Industries, Inc., 21343 Roscoe Blvd., Canoga Park, Calif.
 Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.
 Vitramon, Inc., Box 544, Bridgeport, Conn.
 Vitro Corp. of America, 261 Madison Ave., New York 16, N. Y.
 Vitroscop Corp., The, 709 E. 106th St., Box 6048, Indianapolis 20, Ind.
 Vocaline Co. of America, Inc., Old Saybrook, Conn.
 Vocatron Mfg. Div. of Vocaline Co. of America, Inc., Old Saybrook, Conn.
 Volkar Corp., 7300 Huron River Drive, Dexter, Mich.
 Volkert & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.
 Volkert Stampings, Inc., 222-34 96th Ave., Queens Village 8, N. Y.
 Voltarc Tubes, Inc., 44 Cross St., Norwalk, Conn.
 Vorac Co., The, 147 Meadow Rd., Rutherford, N. J.
 Vulcan Electric Co., Danvers, Mass.

W

Waage Electric, Inc., 720 Colfax Ave., Kenilworth, N. J.
 WacLine, Inc., 35 S. St. Claire St., Dayton 2, Ohio.
 Waco, Inc., 2032 Broadway, Santa Monica, Calif.
 Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.
 Wagner Electric Corp., 6400 Plymouth Ave., St. Louis 14, Mo.
 Waldes Kohinore Inc., 47-16 Austel Place, Long Island City 1, N. Y.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Waldorf Instrument Co., Div. of F. C. Huyck & Sons, Park Ave., Huntington Station, N. Y.
 Wales-Strippit Co., Akron, New York.
 Walker Co., George, 118 Amsterdam Ave., Passaic, N. J.
 Walkirt Co., 141 W. Hazel St., Inglewood 3, Calif.
 Wall Mfg. Co., Grove City, Pa.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.
 Wallson Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J.
 Walnut Machine Co., 1529 S. Walnut St., South Bend 14, Ind.
 Walsco Electronics Mfg. Co., 100 Green St., Rockford, Ill.
 Walser Automatic Timer Corp., Graybar Bldg., New York 17, N. Y.
 Walsh Press & Die Co., Div. of American Gage & Machine Co., 47-09 W. Kinzie St., Chicago, Ill.
 Walter Co., Inc., S. 1400 Atlantic Ave., Brooklyn 16, N. Y.
 Walter Lee Chemical Co., 1381 Seabury Ave., Bronx 61, N. Y.
 Waltham Horological Corp., 395 Lynnway, Lynn, Mass.
 Waltham Screw Co., Waltham, Mass.
 Waltham Watch Co., Instrument & Industrial Products, Waltham 54, Mass.
 Wang Laboratories, Inc., 37 Hurley St., Cambridge 41, Mass.
 Wappler, Inc., 27-10 Astoria Blvd., Long Island 2, N. Y.
 Ward Leonard Electric Co., 31 South St., Mt. Vernon, N. Y.
 Warren Mfg. Co., Inc., The, Newton Rd., Littleton, Mass.
 Warren Plastics Corp., Warren, Pa.
 Warren Transformer Co., Inc., 103 Warren St., Tunkhannock, Pa.
 Warren Wire Co., Pownal, Vt.
 Warrick Co., Charles F., 1964 W. Eleven Mile Rd., Berkeley, Mich.
 Warsaw Coil Co., Warsaw, Ind.
 Washington Machine & Tool Works, 1001 Washington Ave., S., Minneapolis 15, Minn.
 Wassco Electric Products Corp., 204 S. Larkin Ave., Joliet, Ill.
 Waterbury Companies, Inc., Waterbury 20, Conn.
 Waterbury Pressed Metal Co., P-M Nut Div., 300 Chase Ave., Waterbury 14, Conn.
 Waterman Products Co., Inc., 2445-63 Emerald St., Philadelphia 25, Pa.
 Waters Conley Co., Inc., 501 First St. N. W., Rochester, Minn.

Waters Manufacturing Inc., Boston Post Rd., Wayland, Mass.
 Watlow Electric Mfg. Co., 1376 Ferguson Ave., St. Louis 14, Mo.
 Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.
 Waugh Engineering Co., 7842 Burnet Ave., Van Nuys, Calif.
 Wave/Particle Co., P. O. Box 252, Menlo Park, Calif.
 Waveforms, Inc., 333 Sixth Ave., New York 14, N. Y.
 Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
 Waveline, Inc., Box 470, Caldwell, N. J.
 Wax Corporation of America, 21-29 Dunham Place, Brooklyn 11, N. Y.
 Weathers Industries, 66 E. Gloucester Pike, Barrington, N. J.
 Webber Corp., P. O. Box 217, Indianapolis 6, Ind.
 Webcor, Inc., Chicago, Ill.
 Webster Electric Co., 1900 Clark St., Racine, Wis.
 Weckesser Co., 5701 Northwest Highway, Chicago 50, Ill.
 Weingarten Electronic Labs., Inc., 7556 Melrose Ave., Los Angeles 46, Calif.
 Weinschel Engineering Co., Inc., 10503 Metropolitan Ave., Kensington, Md.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
 Weldmatic Div. of Unitek Corp., 380 N. Halstead Ave., Pasadena, Calif.
 Weller Electric Corp., Box 345, Easton, Pa.
 Wells Co., Gary, 361 Rockaway Ave., Valley Stream, N. Y.
 Wells-Gardner & Co., 2701 N. Kildare Ave., Chicago 39, Ill.
 Wells & Winegard, 3000 Scotten Blvd., Burlington, Iowa.
 Weltron Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
 Weiwyn International Inc., 3355 Edgecliff Terrace, Cleveland 11, Ohio.
 Wen Products, Inc., 5806 Northwest Highway, Chicago 31, Ill.
 Wenco Mfg. Co., 1133 W. Hubbard St., Chicago 22, Ill.
 West Coast Electrical Mfg. Corp., 233 W. 116th Place, Los Angeles 61, Calif.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.
 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
 West Virginia Pulp & Paper Co., 230 Park Ave., New York 17, N. Y.
 Westberg Mfg. Co., 144 S. Coombs St., Napa, Calif.
 Westbury Electronics, Inc., 300 Shames Drive, Westbury, N. Y.
 Western Coil Products Co., 969 Commercial St., Palo Alto, Calif.
 Western Electric-Acoustic Lab., 11789 San Vicente Blvd., Los Angeles 49, Calif.
 Western Felt Works, 4029 Ogden Ave., Chicago, Ill.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
 Western Gold & Platinum Co., 589 Bryant St., San Francisco, Calif.
 Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.
 Western Radiation Lab., 1107 W. 24th St., Los Angeles 7, Calif.
 Western Union Telegraph Co., 60 Hudson St., New York 13, N. Y.
 Westinghouse Electric Corp., P. O. Box 868, Pittsburgh 30, Pa.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.
 Westlabs Inc., Dept. E, P. O. Box 1111, Palo Alto, Calif.
 Westlake Plastics Co., 133 W. Lenni Rd., Lenni, Pa.
 Westline Products Div. of Western Lithograph Co., 600 E. Second St., Los Angeles 54, Calif.
 Weston Electrical Instrument Corp., A Sub. of Daystorm, Inc., 614 Frelinghuysen Ave., Newark 12, N. J.

Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Westronics of Calif. Div. of Electromation Co., 1646 Eighteenth St., Santa Monica, Calif.
 Westronics, Inc., 3605 McCart St., Fort Worth, Texas.
 Wheeler Insulated Wire Co., Inc., The Div. of The Sperry Corp., 150 E. Aurora St., Waterbury 91, Conn.
 Wheeler Laboratories, Inc., Great Neck, N. Y.
 Wheelock Signals Inc., 273 Branchport Ave., Long Branch, N. J.
 Whistler & Sons, Inc., S. B., 752 Military Rd., Buffalo 23, N. Y.
 Whitaker Cable Corp., Kansas City 16, Mo.
 White Aircraft Corp., Palmer, Mass.
 White Dental Mfg. Co., S. S., Industrial Div., 10 E. 40th St., New York 16, N. Y.
 White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.
 White Instrument Laboratories, Box 9006, Allendale Station, Austin 17, Texas.
 White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.
 Whiteford Laboratory, 420 Market St., San Francisco 11, Calif.
 Whitney Blake Co., New Haven 14, Conn.
 Whitso, Inc., 9328 Byron St., Schiller Park, Ill.
 Whittington Pump & Engineering Corp., 1126 Prospect St., Indianapolis 3, Ind.
 Wickes Engineering & Construction Co., P. O. Box 590, Camden 1, N. J.
 Wiedemann Machine Co., 4272 Wissahickon Ave., Philadelphia 32, Pa.
 Wiegand Co., Edwin L., 7606 Thomas Blvd., Pittsburgh 8, Pa.
 Wiegand Mfg. Co., 120 E. Hawthorne Ave., Valley Stream, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
 Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.
 Willard Storage Battery Div., The Electric Storage Battery Co., 246-286 E. 131st St., Cleveland 1, Ohio.
 Williams & Co., C. K., 640 N. 13th St., Easton, Pa.
 Williamson Development Co., Inc., 317 Main St., West Concord, Mass.
 Willson Camera Co., Inc., 1395 Lawrence Rd., Haver-town, Pa.
 Willy Guenther K. G., 1138 Massachusetts Ave., Arlington 74, Mass.
 Wilmad Glass Co., Inc., Landisville, N. J.
 Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.
 Wilmington Fibre Specialty Co., New Castle, Del.
 Wilrite Products, Inc., 3835 W. 150th St., Cleveland 11, Ohio.
 Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.
 Wilson Co., H. A., The, 2655 U. S. Hwy. 22, Union, N. J.
 Wilton Tool Mfg. Co., 9525 Irving Park Rd., Schiller Park, Ill.
 Winatic Corp., The, P. O. Box 240, Endicott, N. Y.
 Wincharger Corp., E. 7th & Division Sts., Sioux City, Iowa.
 Winchester Electronics, Inc., Willard Rd., Norwalk, Conn.
 Winco Electronics, 644 N. Hawthorne Blvd., Hawthorne, Calif.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.
 Winder Aircraft Corp., P. O. Box 2397, Lakeland, Fla.
 Winkler Laboratories, 5225 N. 20th St., Phoenix, Ariz.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.
 Winzeler Mfg. & Tool Co., 1716 W. Arcade Place, Chicago 12, Ill.
 Wire Stripper Co., 1722 Eastham Ave., East Cleveland 12, Ohio.
 Witelrad Electrical Mfg., Inc., 76 Pulaski St., Stamford, Conn.

Wolfe Co., Franklin C., Div. of Parker Appliance Co., 10567 Jefferson Blvd., Culver City, Calif.
 Wood Counter Laboratory, N., 5491 Blackstone, Chicago 37, Ill.
 Woodcraft Corp., 501 Salzburg Ave., Bay City, Mich.
 Woodwelding, Inc., 3000 W. Olive, Burbank, Calif.
 Worcester Pressed Aluminum Corp., 13-15 Hope Ave., Worcester 3, Mass.
 Worcester Pressed Steel Co., 101 Barber Ave., Worcester 6, Mass.
 Workman TV, Inc., 309 Queen Anne Road, Teaneck, N. J.
 World Radio Laboratories, Inc., 3415 W. Broadway, Council Bluffs, Iowa.
 Worner Electronic Devices, Rankin, Ill.
 Wright Electronics, Inc., 1519 McGee St., Kansas City 7, Mo.
 Wright Equipment Co., 128 N. Main St., Milltown, N. J.
 Wright Metalcoaters Inc., 255 West St., South Hackensack, N. J.
 Wright & Sons Co., William E., West Warren, Mass.
 Wright-Zimmerman, Inc., New Brighton, Minn.
 Wrought Washer Mfg. Co., 2264 S. Bay St., Milwaukee 7, Wis.
 Wunderlich Radio Co., 2 Fifth Ave., New York 11, N. Y.
 Wyco Metal Products, 6918 Beck Ave., North Hollywood, Calif.
 Wye Industries, 6 General Devine Way, Boston 27, Mass.

X

Xcelite, Inc., 28 Bank St., Orchard Park, N. Y.
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

Y

Yale & Towne Mfg. Co., Powdered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.
 Yardney Electric Corp., 40 Leonard St., New York 13, N. Y.
 Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.
 Yonkers Industries, Inc., 28 School St., Yonkers, N. Y.
 Young Brothers Co., 1831 Columbus Rd., Cleveland 13, Ohio.

Z

Z & W Mfg. Corp., 30240 Lakeland Blvd., Wickliffe, Ohio.
 Zacharias Co., Robert, 519 S. Oakley Blvd., Chicago, Ill.
 Zagora Gears, Inc., 1327 S. Mint St., Charlotte 3, N. C.
 Zell Products Corp., 276-280 Main St., Norwalk, Conn.
 Zenith Aircraft Div. of Zenith Plastics Co., P. O. Box 91, Gardena, Calif.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.
 Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.
 Zenith Radio Corp., 6001 Dickens Ave., Chicago 39, Ill.
 Zephyr Products Co., 129 E. 124th St., New York 35, N. Y.
 Zero Mfg. Co., 1121 Chestnut St., Burbank 71, Calif.
 Zierick Mfg. Corp., Beechwood & Rockdale Aves., New Rochelle, N. Y.
 Zoomar, Inc., Glen Cove, N. Y.
 Zophar Mills, Inc., 115 26th St., Brooklyn 32, N. Y.

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